

ing the surface of the water partially unprotected. This shows that the surface tension of the oily liquid is much less than that of the water. If aqueous vapor should begin to condense upon a minute drop of oil as a nucleus, then, at some time in the history of the growth of the drop, the oil should escape from the center and become the surface film of the drop and retard its future growth as a drop of water. This whole subject lends itself to a beautiful series of experiments, such as might be carried on by the students of physics in the well equipped laboratories that are now so common in our universities and agricultural experiment stations.

NEW JERSEY.

A heavy thunderstorm and a disastrous stroke of lightning by which 5 men were killed and 3 were seriously injured occurred on Tuesday afternoon, July 19, near Boonton. It seems that the party took refuge under a tree on the banks of the Rockaway River. The Boonton Bulletin remarks:

Notwithstanding the many warnings about seeking shelter under trees during thunderstorms, many persons when caught out in a storm run to the trees. We regret to say that this fearful catastrophe is another illustration of the thoughtlessness of people under such circumstances.

Is not this too severe an arraignment? Doubtless the unfortunate men had heard that trees were dangerous but where else could they flee from the the storm? If they had sat upright in their boat anchored on the river, they would, like the poor horse in Dakota, have been as it were a projection above the plane of the water surface and, therefore, especially liable to be struck. Had they walked farther up the river banks beyond the trees, with umbrellas over their heads and fishing poles in their hands, they would also have acted as lightning rods to attract the flash. Had they hastily erected a genuine lightning rod and then retreated a few feet from it, they might possibly have been safe. But except for this, we know of no way by which they could have insured their safety. We can not attribute their deaths to their own thoughtlessness; they ran from one danger only to run into another, and it is not for us to say that the very slight chance of being killed by lightning—which hangs over all of us at all times—need enter into consideration when we are trying to escape the greater peril of high wind, heavy rains, and hail.

NEW YORK.

All section reports for the month of July pay especial attention to the amount of damage by lightning which subject will be summed up exhaustively in the Annual Report of the Chief of the Weather Bureau. As the July report for New York could not be published in time for consultation by the Editor, Mr. R. G. Allen has kindly sent, in advance, the following item with regard to loss by lightning:

Voluntary observers and crop reporters in this section report that the thunderstorms in the different parts of this State, during July, were more violent than ever before known by the oldest citizens. They occurred on the 3d, 4th, 9th, 11th, 18th, 19th, 20th, 21st, 23d, 24th, 25th, 26th, 28th, and 29th. The amount of loss was unprecedented. The following is a brief summary of casualties:

Seventeen (17) houses struck, total loss, \$1,138; thirty-seven (37) barns burned, total loss, \$44,536; value of stock killed by lightning amounted to \$2,190; four (4) churches were struck, and were injured to

the extent of \$600; a large planing mill at Moira was burned with a loss of \$12,000; the Stephenson Brewing Company at Oswego was struck by lightning and burned, the loss being \$150,000; sum of all losses reported to the Ithaca office was \$210,464. It is a noticeable fact that nearly all of the barns burned contained grain or hay, or both.

The distribution of this destruction on different days of the month was as follows:

Date.	No. of localities.	Value of property destroyed.
July 3...	4	\$3,450
4...	1	1,000
11...	1	130
18...	6	17,611
19...	9	158,770
20...	1	100
21...	5	1,380
23...	14	15,038
24...	1	250
25...	9	6,860
26...	3	3,670
28...	5	2,080
29...	2	125
Total. ....	.....	\$210,464

BRIGHT METEORS.

The Editor has recently received glowing accounts of something extraordinary in the way of aerolites or great meteors that are said to have fallen "in the back country up river," in June, in West Virginia. Parties are said to be out searching for some of the pieces, but the Editor fears that they will never be found. When a great meteor falls it is apt to be seen for a few seconds over a wide extent of country. This particular meteor was observed near Findlay, Ohio (N. 41° 3'; W. 83° 40'), and appeared to fall somewhere eastward. It is also reported from Point Pleasant, W. Va., on the Ohio River (N. 38° 50'; W. 82° 10'), where it appeared to fall somewhere back of Hawksnest; that is to say, still somewhat to the east. If these observations are reliable they simply point to the fact that a meteor passed eastward through the atmosphere on June 3, high enough up to be seen from distant points; but the detailed account about its actual fall to the ground must be a matter of imagination. Undoubtedly some meteors do reach the ground, but it is best not to describe such a fall until after the pieces have been found. Most of the bright meteors that seem to strike the ground beyond the distant horizon have actually been hundreds of miles distant, and are consumed in the air without striking the ground.

RECENT EARTHQUAKES.

No disturbances were reported during July from the seismoscopes of Professor Morley, Cleveland, Ohio, and Professor Marvin, Washington, D. C.

July 21.—Rivas, Nicaragua, slight shock at 11:55 p. m.

July 23-24.—Chile: During the night at Concepcion, and at Talcahuano, 8 miles distant, a violent shock lasting a minute and destroying many houses.

July 25.—New Hampshire: Concord and Canterbury, about 6 p. m.

METEOROLOGICAL TABLES AND CHARTS.

By A. J. HENRY, Chief of Division of Records and Meteorological Data.

Table I gives, for about 130 Weather Bureau stations making two observations daily and for about 20 others making only one observation, the data ordinarily needed for climatological studies, viz, the monthly mean pressure, the monthly means and extremes of temperature, the average conditions as to moisture, cloudiness, movement of the wind, and

the departures from normals in the case of pressure, temperature, and precipitation, the total depth of snowfall, and the mean wet-bulb temperatures. The altitudes of the instruments above ground are also given.

Table II gives, for about 2,700 stations occupied by voluntary observers, the highest maximum and the lowest minimum

temperatures, the mean temperature deduced from the average of all the daily maxima and minima, or other readings, as indicated by the numeral following the name of the station; the total monthly precipitation, and the total depth in inches of any snow that may have fallen. When the spaces in the snow column are left blank it indicates that no snow has fallen, but when it is possible that there may have been snow of which no record has been made, that fact is indicated by leaders, thus (. . .).

Table III gives, for about 30 stations furnished by the Canadian Meteorological Service, Prof. R. F. Stupart, director, the means of pressure and temperature, total precipitation and depth of snowfall, and the respective departures from normal values, except in the case of snowfall.

Table IV gives, for 26 stations selected out of 113 that maintain continuous records, the mean hourly temperatures deduced from the Richard thermographs described and figured in the Report of the Chief of the Weather Bureau, 1891-92, p. 29.

Table V gives, for 26 stations selected out of 104 that maintain continuous records, the mean hourly pressures as automatically registered by Richard barographs, except for Washington, D. C., where Foreman's barograph is in use. Both instruments are described in the Report of the Chief of the Weather Bureau, 1891-92, pp. 26 and 30.

Table VI gives, for about 130 stations, the arithmetical means of the hourly movements of the wind ending with the respective hours, as registered automatically by the Robinson anemometer, in conjunction with an electrical recording mechanism, described and illustrated in the Report of the Chief of the Weather Bureau, 1891-92, p. 19.

Table VII gives, for all stations that make observations at 8 a. m. and 8 p. m., the four component directions and the resultant directions based on these two observations only and without considering the velocity of the wind. The total movement for the whole month, as read from the dial of the Robinson anemometer, is given for each station in Table I. By adding the four components for the stations comprised in any geographical division, the average resultant direction for that division can be obtained.

Table VIII gives the total number of stations in each State from which meteorological reports of any kind have been received, and the number of such stations reporting thunderstorms (T) and auroras (A) on each day of the current month.

Table IX gives, for about 70 stations, the average hourly sunshine (in percentages) as derived from the automatic records made by two essentially different types of instruments, designated, respectively, the thermometric recorder and the photographic recorder. The kind of instrument used at each station is indicated in the table by the letter T or P in the column following the name of the station.

Table X gives a record of rains whose intensity at some period of the storm's continuance equaled or exceeded the following rates:

Duration, minutes..	5	10	15	20	25	30	35	40	45	50	60	80	100	120
Rates pr. hr. (ins.)..	3.00	1.80	1.40	1.20	1.08	1.00	0.94	0.90	0.86	0.84	0.75	0.60	0.54	0.50

In the northern part of the United States, especially in the

colder months of the year, rains of the intensities shown in the above table seldom occur. In all cases where no storm of sufficient intensity to entitle it to a place in the full table has occurred, the greatest rainfall of any single storm has been given, also the greatest hourly fall during that storm.

Table XI gives the record of excessive precipitation at all stations from which reports are received.

NOTES EXPLANATORY OF THE CHARTS.

Chart I.—Tracks of centers of high pressure. The roman letters show number and order of centers of high areas. The figures within the circles show the days of the month; the letters *a* and *p* indicate, respectively, the 8 a. m. and 8 p. m., seventy-fifth meridian time, observations. The queries (?) on the tracks show that the centers could not be satisfactorily located. Within each circle is given the highest barometric reading reported near the center. A blank indicates that no reports were available. A wavy line indicates the axis of a ridge of high pressure.

Chart II.—Tracks of centers of low pressure. The roman letters show number and order of centers of low areas. The figures within the circles show the days of the month; the letters *a* and *p* indicate, respectively, the 8 a. m. and 8 p. m., seventy-fifth meridian time, observations. The queries (?) on the tracks show that the centers could not be satisfactorily located. Within each circle is given the lowest barometric reading reported near the center. A blank indicates that no reports were available. A wavy line indicates the axis of a trough or long oval area of low pressure.

Chart III.—Total precipitation. The scale of shades showing the depth of rainfall is given on the chart itself. For isolated stations the rainfall is given in inches and tenths, when appreciable; otherwise, a "trace" is indicated by a capital T, and no rain at all, by 0.0.

Chart IV.—Sea-level isobars and isotherms, and resultant winds. The wind directions on this Chart are the computed resultants of observations at 8 a. m. and 8 p. m., daily; the resultant duration is shown by figures attached to each arrow. The temperatures are the means of daily maxima and minima and are reduced to sea level. The pressures are the means of 8 a. m. and 8 p. m. observations, daily, and are reduced to sea level and to standard gravity. The reduction for 30 inches of the mercurial barometer, as formerly shown by the marginal figures for each degree of latitude, has already been applied.

Chart V.—Hydrographs for seven principal rivers of the United States.

Chart VI.—Surface temperatures; maximum, minimum, and mean. Lines of equal monthly mean temperature in red; lines of equal maximum temperatures (broken) in black; and lines of equal minimum temperature (dotted) also in black.

Chart VII.—Percentage of sunshine. The average cloudiness at each Weather Bureau station is determined by numerous personal observations during the day. The difference between the observed cloudiness and 100, it is assumed, represents the percentage of sunshine, and the values thus obtained have been used in preparing Chart VII.

TABLE I.—Climatological data for Weather Bureau Stations, July, 1898.

Stations.	Elevation of instruments.		Pressure, in inches.		Temperature of the air, in degrees Fahrenheit.								Precipitation, in inches.		Wind.																				
	Barometer above sea level, feet.	Thermometers above ground.	Mean at 8 a.m. and 8 p.m. + 2°.	Mean reduced.	Maximum.	Departure from normal.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.	Mean wet thermometer.	Mean temperature of the dew-point.	Days with 0.1, or more.	Total movement, miles.	Prevailing direction.	Miles per hour.	Maximum velocity.	Clear days.															
	Anemometer above ground.	Mean at 8 p.m. + 2°.	Departure from normal.	Mean max. and min. + 2°.	Departure from normal.	Mean maximum.	Mean minimum.	Mean maximum.	Mean minimum.	Mean maximum.	Mean minimum.	Mean relative humidity, per cent.	Total.	Departure from normal.	Days with 0.1, or more.	Total movement, miles.	Direction.	Date.	Party cloudy days.																
New England.																																			
Eastport.	76	69	74	29.94	30.03	+ .10	65.4	+ 0.2	60.2	+ -0.2	67.8	+ 0.7	87	+ 1	68	47	1	52	32	57	55	86	0.66	+ 3.2	6	5,539	s.	24	s.	25	8	11	12	6.4	
Portland, Me.	103	81	89	29.90	30.00	+ .08	67.8	+ 1	67.8	+ 0.7	97	+ 2	83	+ 1	75	11	60	34	62	58	75	1.78	- 1.8	11	5,218	s.	27	nw.	15	10	8	13	5.8		
Northfield.	872	15	65	29.13	30.03	+ .09	68.0	+ 2	2.9	94	81	+ 1	81	+ 1	72	12	55	42	62	58	71	1.64	- 1.5	11	5,813	s.	36	nw.	9	7	16	5.0			
Boston.	123	115	181	29.91	30.04	+ .10	71.8	+ 0.5	80	+ 0.1	80	+ 1	80	+ 1	73	11	64	30	65	62	75	4.42	- 1.0	12	6,855	sw.	36	n.	21	9	13	9	5.7		
Nantucket.	14	48	54	30.05	30.06	+ .05	67.3	+ 0.5	68	+ 0.5	80	+ 1	80	+ 1	73	54	7	62	20	64	64	93	2.93	- 0.5	8	6,494	s.	34	n.	14	9	16	6.8		
Woods Hole.	22	51	57				68.2	+ 0.5	68	+ 0.5	80	+ 1	80	+ 1	73	57	7	63	24	20	64	79	5.18	- 2.1	7	7,710	s.	40	nw.	13	13	10	8	4.4	
Vineyard Haven.	20						71.3	+ 0.4	91	+ 1	79	+ 1	79	+ 1	73	56	8	64	32	27	64	88	4.74	- 1.7	9	8,520	s.	60	ne.	13	15	7	12		
Block Island.	27	39	48	30.04	30.07	+ .10	67.6	+ 1	67.6	+ 0.8	83	+ 1	83	+ 1	78	52	* 7	64	32	64	63	79	3.49	- 0.3	9	9,646	s.	33	ne.	13	13	6	10	4.7	
Narragansett.	10						70.1	+ 1	70.1	+ 0.1	88	+ 1	88	+ 1	83	52	*	64	25	30	67	64	79	5.03	- 0.1	9	9,564	s.	33	ne.	13	13	12	10	5.0
New Haven.	107	118	140	29.94	30.05	+ .08	72.0	+ 1	72.0	+ 0.2	97	+ 1	97	+ 1	92	51	11	64	30	67	64	79	4.29	- 0.0	0	9,564	s.	33	ne.	13	13	12	6	5.5	
Md. Atlan. States.							76.3	+ 1	77.3	+ 0.2	100	+ 1	98	+ 1	93	50	11	65	32	66	61	86	1.07	- 2.9	9	5,038	s.	24	w.	15	9	18	4	5.1	
Albany.	87	84	113	29.94	30.04	+ .11	75.3	+ 2	88	+ 1	95	+ 1	95	+ 1	90	40	12	61	39	39	39	88	2.05	- 1.2	9	3,693	w.	20	sw.	19	8	11	12	6.2	
Binghamton.	875	79	90	29.73	30.05	+ .07	72.4	+ 3	7.7	95	83	+ 1	84	+ 1	77	57	13	67	29	67	64	77	4.76	- 0.6	12	6,490	s.	36	ne.	13	11	11	9	5.5	
New York.	314	296	326	29.73	30.05	+ .07	77.4	+ 0.6	96	+ 1	88	+ 1	87	+ 1	83	57	13	68	29	69	65	72	5.07	- 0.8	9	4,195	se.	22	nw.	30	11	11	9	5.2	
Harrisburg.	877	94	104				78.2	+ 4.5	101	+ 1	93	+ 1	93	+ 1	88	61	18	70	24	70	68	86	3.63	- 0.5	8	6,341	s.	36	nw.	4	7	12	6.0		
Philadelphia.	117	168	184	29.93	30.05	+ .06	75.3	+ 2.5	100	+ 1	93	+ 1	93	+ 1	88	62	11	69	29	69	65	72	4.13	- 1.2	8	6,983	s.	50	ne.	13	11	14	6.9		
Atlantic City.	52	68	76	30.00	30.05	+ .07	73.2	+ 1	73.2	+ 1	93	+ 1	93	+ 1	88	62	11	69	19	68	69	73	3.51	- 1.2	8	3,765	s.	20	ne.	13	12	11	9	4.6	
Cape May.	24	52	70	30.04	30.06	+ .06	73.0	+ 0.5	88	+ 1	88	+ 1	88	+ 1	83	57	11	70	28	70	65	73	3.51	- 1.2	8	3,765	s.	20	ne.	13	12	11	9	4.6	
Baltimore.	128	68	82	29.92	30.04	+ .06	78.7	+ 1.5	104	+ 1	93	+ 1	93	+ 1	88	62	11	70	28	70	65	73	3.51	- 1.2	8	3,765	s.	20	ne.	13	12	11	9	4.6	
Washington.	112	52	76	29.94	30.05	+ .06	78.8	+ 2.0	101	+ 1	93	+ 1	93	+ 1	88	62	11	70	28	70	65	73	3.51	- 1.2	8	3,765	s.	20	ne.	13	12	11	9	4.6	
Cape Henry.	5	34					78.6	+ 1.6	99	+ 1	85	+ 1	85	+ 1	80	65	6	12	25	30	30	68	7.17	- 8.3	12	2,508	ne.	22	nw.	17	7	13	11	6.0	
Lynchburg.	685	83	88	29.35	30.07	+ .07	77.4	+ 0.1	88	+ 1	88	+ 1	88	+ 1	83	57	12	68	30	70	70	87	8.89	- 3.0	18	5,384	s.	29	ne.	19	11	12	8	4.8	
Norfolk.	57	88	93	30.00	30.06	+ .05	78.8	+ 0.8	96	+ 1	86	+ 1	86	+ 1	81	52	12	71	24	74	73	87	4.15	- 1.0	17	4,426	n.	25	se.	17	6	17	8	5.6	
Richmond.	144	98	105				80.0	+ 0.1	99	+ 1	87	+ 1	87	+ 1	82	58	11	70	25	30	30	82	8.06	- 1.7	17	4,426	s.	25	se.	17	6	17	8	5.6	
S. Atlantic States.							78.4	+ 0.2	97	+ 1	92	+ 1	92	+ 1	87	58	13	70	25	70	68	78	4.82	- 0.7	20	4,514	e.	26	s.	4	4	19	8	5.9	
Charlotte.	773	68	76	29.25	30.05	+ .02	78.4	+ 0.2	97	+ 1	92	+ 1	92	+ 1	87	58	13	70	25	70	68	78	4.82	- 0.7	20	4,514	e.	26	s.	4	4	19	8	5.9	
Hatteras.	11	17	26	30.06	30.07	+ .04	78.6	+ 0.7	86	+ 1	92	+ 1	92	+ 1	87	61	11	74	25	70	68	78	4.82	- 0.7	20	4,514	s.	34	nw.	19	12	14	5.4		
Kittyhawk.	9	12	30				79.1	+ 1	91	+ 1	95	+ 1	95	+ 1	87	65	13	72	24	70	68	78	5.54	- 0.3	12	9,824	s.	34	sw.	15	8	14	5.4		
Raleigh.	375	93	101	29.68	30.06	+ .02	79.5	+ 2.4	96	+ 1	92	+ 1	92	+ 1	88	61	12	71	24	72	70	78	6.48	- 1.4	12	4,163	s.	25	sw.	27	17	17	10	6.1	
Wilmington.	78	82	90	30.00	30.08	+ .05	79.0	+ 0.7	95	+ 1	92	+ 1	92	+ 1	88	62	12	72	24	74	73	86	7.03	- 0.2	19	5,284	s.	24	ne.	11	6	14	6.4		
Charleston.	48	14	92	30.05	30.10	+ .06	81.4	+ 0.9	98	+ 1	95	+ 1	95	+ 1	90	57	13	71	26	70	68	83	12.17	- 6.6	12	4,163	s.	25	sw.	11	10	14			
Columbia.	5						80.4	+ 0.9	98	+ 1	95	+ 1	95	+ 1	90	57	13	72	21	75	73	84	12.17	- 6.6	12	4,163	s.	25	sw.	11	10	14			
Augusta.	180	89	103	29.87	30.05	+ .04	80.6	+ 0.5	97	+ 1	92	+ 1	92	+ 1	88	60	12	72	21	75	73	84	12.03	- 5.6	23	5,386	s.	36	nw.	28	6	18	6.0		
Savannah.	82	68	89	29.99	30.07	+ .02	81.2	+ 0.7	98	+ 1	92	+ 1	92	+ 1	87	67	13	72	21	75	73	84	12.03	- 5.6	23	5,386	s.	36	s.	5	8	18	5.5		
Florida Peninsula.	48	60	84	30.02	30.07	+ .02	82.0	+ 1	98	+ 1	92	+ 1	92	+ 1	87	67	13	72	21	75	73	84	5.79	- 0.3	11	5,794	s.	36	sw.	28	6	18	4.4		
Jupiter.	28	13	30	30.05	30.08	- .02	81.0	+ 0.2	91	+ 1	87	+ 1	87	+ 1	82	69	2	75	17	76	74	81	6.80	- 2.1	11	6,637	se.	36	ne.	2	13	14	4.5		
Key West.	23	43	50	30.05	30.07	+ .01	83.2	+ 0.7	91	+ 1	88	+ 1	88	+ 1	83	61	11	72	22	74	72	82	2.28	- 1.6	11	5,365	se.	35	sw.	30	17	12	8.8		
Tampa.	36	60	67	30.03	30.07	+ .01	81.0	+ 0.4	101	+ 1	92	+ 1	92	+ 1	87	59	10	73	22	74	72	82	6.25	- 1.5	20	4,443	s.	35	sw.	12	9	17	5.0		
East Gulf States.	1,131	92	126	28.																															

TABLE I.—*Climatological data for Weather Bureau Stations, July, 1898—Continued.*

Stations.	Elevation of instruments		Pressure, in inches.		Temperature of the air, in degrees Fahrenheit.										Precipitation, in inches.		Wind.														
	Barometer above sea level, feet.		Thermometers above ground.		Mean actual, 8 a.m. and 8 p.m. + 2.					Mean max. and min. + 2.					Mean wet thermometer.		Mean temperature of the dewpoint.		Total movement, miles.		Maximum velocity.										
	Anemometers above ground.		Mean reduced.		Departure from normal.		Mean max. and min. + 2.		Departure from normal.		Mean maximum.		Mean minimum.		Greatest daily range.		Total.		Departure from normal.		Days with .01, or more.		Miles per hour.		Direction.						
Up. Miss. Val.—Con.	908	101	109	29.27	30.00	+ .03	74.1	- 0.2	95	19	85	53	30	63	34	66	61	66	2.83	- 1.4	7	4,225	s.	56	n.w.	19	24	4	3	2.7	
Dubuque	614	64	78	29.37	30.01	+ .04	77.1	+ 0.2	97	24	86	56	11	68	28	68	63	65	3.06	- 1.0	5	4,321	s.e.	38	w.	28	33	6	5	3.8	
Keokuk	359	87	93	29.64	30.01	+ .02	78.4	- 0.5	94	2	86	62	12	71	23	72	70	50	5.67	+ 2.2	14	5,126	s.	38	n.	29	9	17	5	4.9	
Cairo	844	82	92	29.35	30.02	+ .02	76.2	+ 0.2	96	24	86	54	11	66	28	67	62	64	2.34	+ 1.0	4	4,845	s.	30	w.	29	11	3	3	4.2	
Springfield, Ill.	524	75	107	29.35	30.02	+ .02	76.2	- 0.5	96	24	85	53	11	68	26	67	62	64	4.20	+ 1.0	4	5,324	s.w.	42	w.	29	23	4	4	4.9	
Hannibal	567	111	210	29.44	30.03	+ .04	78.2	- 0.6	96	24	86	57	11	70	23	70	66	70	7.44	+ 3.7	12	5,382	s.	35	w.	29	10	15	6	4.9	
Missouri Valley.							75.0	- 0.3										67	4.16	+ 0.1								4.0			
Columbia	4	84					76.3	+ 0.2	97	24	87	52	13	66	35	69	66	70	4.60	+ 0.2	12	4,593	s.	34	n.w.	29	14	8	9	4.7	
Kansas City	963	78	95	29.01	30.00	+ .03	77.3	- 0.2	96	19	86	61	30	68	29	69	65	70	4.93	+ 0.7	9	5,020	s.e.	50	n.w.	27	17	10	4	3.8	
Springfield, Mo.	1,324	100	103	28.64	30.00	+ .02	75.0	- 0.7	91	28	83	55	11	67	23	69	67	78	7.29	+ 2.5	11	6,140	s.e.	37	n.w.	30	5	9	3	4.7	
Topeka	81						76.7	- 0.7	100	19	87	53	12	66	34	66	63	67	2.63	+ 2.6	5										
Lincoln	1,199	74	84	28.73	29.96	+ .01	74.7	- 2.1	97	27	86	51	30	68	38	66	61	67	3.93	+ 0.0	7	7,154	s.e.	36	n.w.	29	13	11	4	3.9	
Omaha	1,103	92	97	28.84	29.97	+ .02	75.3	- 0.9	95	18	85	59	30	66	38	66	61	65	4.20	- 0.6	7	5,399	s.e.	32	n.e.	29	18	11	2	3.3	
Sioux City	1,139	96	104				73.4	- 0.9	94	18	86	56	20	62	33	62	63	65	2.73	+ 0.5	11	7,911	s.e.	36	s.	18	16	8	7	4.1	
Pierre	1,460	50	62	28.40	29.90	- .01	76.0	+ 1.4	102	21	89	51	20	63	36	63	55	55	3.08	+ 0.9	12	7,842	s.e.	46	e.	19	9	8	4	3.3	
Huron	1,306	56	67	28.57	29.93	- .01	71.0	+ 0.1	92	23	83	45	20	59	34	62	58	68	3.88	+ 0.7	14	8,812	s.e.	58	s.	15	11	17	3	4.5	
Yankton	1,223	52	58				73.9	+ 0.3	96	26	85	52	20	63	36	63	56	61	4.25	+ 0.5	7	6,022	s.	36	s.	15	1	4	3	3.7	
Northern Slope.							69.0	- 0.6										61	1.51	- 0.2								3.7			
Havre	2,494	46	47	27.81	29.84	- .04	67.8	+ 0.3	98	16	81	44	20	55	29	56	47	55	2.57	+ 0.4	7	7,767	s.w.	49	s.w.	16	22	5	4	3.8	
Miles City	2,372	41	49	27.44	29.84	- .05	72.4	- 1.3	103	25	86	43	20	59	46	59	51	56	1.01	+ 0.4	10	5,775	n.	45	s.w.	10	11	17	3	4.3	
Helena	4,108	88	93	25.88	29.96	+ .05	65.4	- 1.8	90	4	73	36	1	53	38	52	40	45	1.71	+ 0.6	7	5,920	s.w.	39	s.w.	17	21	8	2	3.0	
Rapid City	3,251	46	50	26.62	29.86	- .05	72.5	+ 1.2	99	5	86	50	2	60	38	45	46	46	1.50	+ 0.2	10	5,753	w.	36	w.	8	13	11	7	4.3	
Cheyenne	6,105	58	60	24.12	29.88	- .01	66.3	- 0.6	93	26	80	40	3	52	42	53	56	66	1.89	+ 0.0	10	7,245	s.	37	s.	20	14	14	3	4.0	
Lander	5,372	28	36	24.72	29.94	+ .02	68.1	- 0.9	91	25	82	40	2	50	43	52	55	67	0.67	- 0.1	7	3,548	s.w.	30	s.w.	20	19	11	1	2.8	
North Platte	2,826	43	52	27.09	29.93	.00	72.4	- 1.1	99	26	85	50	3	60	35	63	58	66	1.29	- 1.4	6	6,590	s.	31	s.	1	18	12	1	3.5	
Middle Slope.							76.1	- 0.4										62	2.77	- 0.1								3.7			
Denver	5,290	79	151	24.81	29.90	+ .03	72.4	+ 0.7	96	28	85	49	2	60	37	57	44	47	0.67	- 1.0	10	5,880	s.	45	n.w.	20	11	18	2	4.4	
Pueblo	4,713	74	81	25.33	29.91	+ .02	74.3	+ 0.3	100	27	88	54	20	60	41	59	49	52	0.57	- 1.6	12	5,841	n.	36	s.w.	26	11	18	2	4.3	
Concordia	1,398	42	47	28.51	29.94	- .01	77.2	+ 0.1	103	26	89	53	14	65	33	67	61	62	2.87	- 0.3	5	4,665	s.	30	s.	13	13	15	3	4.5	
Dodge	2,504	44	52	27.41	29.92	+ .01	76.8	- 0.8	102	27	88	57	14	65	31	66	62	67	3.14	+ 0.5	10	7,744	s.e.	44	s.	16	14	13	3	3.8	
Wichita	1,351	78	86	28.58	29.96	+ .02	77.4	- 1.0	100	29	88	53	14	67	31	69	64	68	5.30	+ 2.2	6	5,332	s.	40	s.w.	29	18	14	3	3.5	
Oklahoma	1,218	54	62	28.72	29.97	+ .02	77.8	- 1.6	97	28	88	60	12	69	26	70	67	74	4.06	+ 0.2	7	6,403	s.	36	s.	19	24	6	1	1.9	
Southern Slope.							83.0	+ 0.1										62	2.67	+ 0.8								3.6			
Abilene	1,749	45	54	28.18	29.94	- .02	81.3	- 1.4	102	23	92	62	14	71	28	68	62	60	1.46	- 0.2	7	6,597	s.	30	s.	19	14	15	2	4.0	
Amarillo	3,691	54	61	26.31	29.95	.00	74.2	- 1.8	95	28	85	56	17	63	32	64	58	64	3.88	+ 1.7	12	10,460	s.	54	n.	23	21	6	4	3.2	
Southern Plateau.							83.0											41	0.80	- 0.4								3.5			
El Paso	3,767	10	110	26.19	29.88	+ .01	79.8	- 2.1	101	29	91	63	16	69	31	65	56	53	1.46	- 0.6	12	7,153	ne.	47	n.e.	30	7	18	6	5.3	
Santa Fe	6,994	29	39	23.99	29.94	.00	68.2	- 0.3	89	29	79	49	16	57	39	55	46	53	2.31	- 0.3	13	4,269	s.e.	34	n.	27	4	13	6	6.3	
Phoenix	1,076	47	57	28.70	29.77	- .03	92.2	+ 2.3	111	25	104	73	4	80	32	70	58	53	0.24	- 0.6	2	3,473	n.w.	32	s.e.	31	22	8	1	2.4	
Yuma	139	16	50	29.61	29.75	- .05	91.9	+ 0.4	113	13	105	73	6	79	34	72	62	43	0.00	- 0.1	0	5,789	w.	38	se.	29	23	1	2	2.0	
Independence	3,907	10	58	25.96	29.76	- .04	80.4	+ 0.9	105	29	94	49	1	67	34	55	25	25	17	T.	- 0.1	0	6,465	se.	30	n.w.	30	23	8	0	1.5
Middle Plateau.							72.5	+ 0.9										34	0.08	- 0.2								2.1			
Carson City	4,720	82	92	25.29	29.90	+ .05	69.5	+ 1.6	99	31	86	45	14	52	47	51	31	30	0.05	- 0.1	1	5,139	w.	35	w.	13	29	2	0	0.9	
Winnebucca	4,940	59	70	25.66	29.89	+ .04	72.2	+ 0.8	98	* 90	40	2	55	44	52	47	4														

TABLE II.—*Meteorological record of voluntary and other cooperating observers, July, 1898.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>Alabama.</i>	○	○	○	In. s.	In. s.	<i>Arizona—Cont'd.</i>	○	○	○	In. s.	In. s.	<i>California—Cont'd.</i>	○	○	○	In. s.	In. s.
Alco ^t	97	60	78.4	7.89		Texas Hill ^{*1}	120	84	98.7	0.06		Escondido.....	104	48	73.6	○	○
Asville ^t	100	59	79.0	6.81		Tombstone.....	97	61	77.1	4.34		Fallbrook ^{*1}	104	58	70.8	T.	
Bermuda ^t	102	63	79.3	7.89		Tucson ^{c†}	108	66	86.3	3.22		Folsom City ^{*1}	109	62	80.4	0.00	
Birmingham ^t	99	60	81.0	5.77		White Hills.....	117	66	92.4	0.40		Fordyce Dam.....	.....	.....	.....	T.	
Bridgeport ^t.....	.....	.....	5.58			Willcox ^{*1}	100	62	79.6	3.13		Fort Romie.....	93	39	64.1	0.00	
Citronelle ^t	94	66	80.0	5.31		Amity.....	94	58	80.0	4.67		Fort Ross.....	88	45	56.6	0.00	
Clanton ^t	98	62	79.4	4.04		Arkansas City ^t.....	.....	.....	.....	.....		Georgetown.....	102	55	75.8	0.00	
Daphne ^t	97	65	81.7	4.69		Beebranch ^s	97	62	80.4	4.16		Goshen ^{*1}	112	65	94.2	0.00	
Decatur ^t	102	59	80.4	5.24		Blanchard Springs ^t	99	58	80.3	3.39		Grand Island ^{*5}	108	51	79.9	0.00	
Demopolis.....	97	60	79.0	5.73		Brinkley.....	95	58	79.8	7.35		Grass Valley.....	.....	.....	.....	T.	
Ebla.....	90	60	79.0	5.78		Camden ^{a†}.....	.....	.....	.....	.....		Greenville ^t	104	30	64.0	0.00	
Eufaula ^{a†}	102	59	81.1	11.27		Camden ^t	99	62	81.0	3.69		Healdsburg ^{*1}	96	40	65.4	0.00	
Evergreen.....	99	61	79.0	4.31		Canton ^{*1}	97	58	80.6	.....		Hill Ranch.....	116	46	76.6	0.00	
Florence ^{a†}.....	.....	.....	6.01			Conway.....	105	58	83.4	3.02		Hollister.....	98	40	64.2	0.00	
Florence ^{b†}	99	63	80.3	5.52		Corning.....	96	51	78.5	6.44		Humboldt L. H. ....	.....	.....	.....	0.08	
Fort Deposit.....	99	59	79.5	4.82		Dallas.....	97	56	79.9	6.98		Hydesville.....	78	42	59.2	0.00	
Gadsden.....	100	59	79.1	5.49		Dardanelle.....	.....	.....	.....	.....		Indio ^{*1}	116	70	93.5	0.00	
Goodwater.....	101	60	80.8	8.18		Elon ^t	98	60	79.6	7.68		Iowa Hill ^t	101	61	74.6	T.	
Greensboro ^t	94	64	79.6	4.55		Fayetteville ^t	96	50	76.0	7.11		Jackson.....	104	50	79.0	T.	
Hamilton.....	102	58	80.7	4.02		Forrest.....	97	58	80.1	2.76		Keene ^{*1}	103	60	76.4	0.00	
Healing Springs.....	95	58	78.6	6.71		Fulton ^t.....	.....	.....	.....	.....		Kennedy Gold Mine.....	106	47	77.1	0.00	
Highland Home ^t	95	61	78.8	5.40		Hardy.....	96	55	78.8	4.71		Kernville.....	.....	.....	.....	0.00	
Jasper.....	.....	.....	7.19			Helena ^{a†}.....	.....	.....	.....	.....		King City ^{*1}	104	50	69.1	0.00	
Livingston.....	96	63	81.5	7.22		Helena ^b	101	66	82.2	1.99		Kingsburg ^{*1}	110	70	93.2	0.00	
Lock No. 4.....	98	60	80.0	5.60		Hot Springs ^a	100	62	81.4	4.11		Kono Tayee.....	100	57	76.8	0.00	
Madison Station ^t	101	57	78.2	6.64		Hot Springs ^b.....	.....	.....	.....	.....		Lagrange ^{*5}	114	57	84.9	0.00	
Maplegrove.....	98	60	79.2	6.84		Jonesboro.....	97	56	79.4	3.65		Laporte ^{*1}	91	45	62.8	T.	
Marion ^t	97	62	81.0	4.84		Keesees Ferry ^t	94	51	73.0	6.00		Lemoore ^{a†}	110	61	86.3	0.00	
Mount Willing ^t	98	63	81.4	5.13		Lacrosse ^t	96	56	78.6	3.09 ^b		Lick Observatory.....	90	50	71.4	0.00	
Newbern ^t	98	61	81.0	8.36		Lonoke ^{*1}	100	60	81.6	3.87		Limekiln.....	114	55	83.5	.....
Newburg.....	102	55	80.6	6.83		Lutherford ^t	104	65	81.1	.....		Lime Point L. H. ....	.....	.....	.....	.....
Newton ^t	95	58	77.2	5.15		Malvern ^t	103	61	81.5	4.10		Lodi.....	105	50	75.8	0.00	
Oneonta.....	95	62	77.2	6.61		Marianna ^{*1}	98	66	81.7	.....		Los Gatos ^b	95	48	66.9	0.00	
Opelika ^t	101	63	80.1	6.39		Marvell.....	98	61	80.8	6.67		Lytton Springs.....	102	49	70.3	0.00	
Oxanna ^t	94	56	76.1	5.19		Mena ^{*1}	95	58	79.2	5.33		Malakoff Mine.....	100	48	72.7	T.	
Pineapple.....	102	60	81.3	4.36		Monticello.....	104	61	80.6	4.15		Mammoth Tank ^{*1}	120	90	101.8	0.00	
Pushmataha ^t	100	63	82.0	6.06		Moore.....	.....	.....	.....	.....		Mare Island L. H.	109	55	83.6	0.00	
Riverton ^t	101	58	80.6	5.77		Mossville.....	91	56	75.5	3.70		Merced ^{*1}	109	58	82.7	0.00	
Rockmills.....	100	54	79.2	4.96		Mount Neko.....	87	59	75.6	6.00		Mills College.....	.....	.....	.....	0.00	
Scottsboro ^t	97	60	78.8	4.25		New Gascony.....	98	58	80.4	2.14		Milo.....	.....	.....	.....	0.00	
Selma ^t	100	62	82.2	5.56		Newport ^{a†}.....	.....	.....	.....	.....		Modesto ^{*1}	105	60	83.8	0.00	
Sturdevant.....	.....	.....	4.02			Newport ^b	99	58	81.2	2.33		Mohave ^{*1}	115	64	87.8	0.00	
Talladega.....	97	58	79.8	8.33		Newport ^{c†}	99	55	73.6	2.56		Mokelumne Hill ^{*3}.....	.....	51	77.2	T.	
Tallassee.....	.....	.....	7.23			Oregon ^{*1}	90	50	76.0	.....		Monterey ^{*1}	71	52	59.9	0.00	
Thomasville [*]	99	63	80.8	6.36		Osceola.....	96	55	79.4	4.52		Mountain View.....	.....	.....	.....	0.00	
Tuscaloosa ^t	99	63	81.4	4.51		Ozark ^t	100	60	81.5	2.87		Mount Tamalpais.....	95	44	70.0	0.00	
Tuscumbia.....	99	63	80.7	3.95		Picayune ^t	100	60	80.6	0.53		Napa b.....	106	45	67.3	0.00	
Union ^t	101	62	82.5	5.88		Pinebluff ^t	100	64	82.8	1.76		Needles.....	114	77	95.8	0.02	
Union Spring ^t	101	65	79.9	4.40		Pocahontas.....	93	57	78.8	6.42		Nevada City.....	98	44	70.0	0.00	
Uniontown ^t	99	68	81.4	8.99		Pond.....	104	52	78.6	13.97		Newhall ^{*1}	108	60	78.2	0.00	
Warrior.....	99	60	80.6	6.93		Prescott.....	102	62	81.8	2.80		North Ontario.....	98	52	73.2	0.06	
Wetumpka.....	101	62	81.3	5.25		Rison.....	99	60	78.6	3.37		North San Juan ^{*1}	100	56	73.0	0.00	
Wilsonville ^t	101	62	81.9	6.29		Russellville.....	97	59	81.4	5.41		Oakland a.....	93	50	62.0	0.00	
<i>Arizona.</i>	.....	.....	.....			Silver Springs ^t	94	51	77.2	11.60		Ogilby ^{*1}	122	90	100.4	0.00	
Benson ^{*1}	101	74	84.4	2.67		Spierville.....	101	55	80.9	3.36		Oleta ^{*1}	102	55	73.9	T.	
Bisbee ^t	94	60	74.9	8.86		Stuttgart ^t	100	55	80.6	3.37		Orland ^{*1}	116	62	89.9	0.00	
Buckeye ^t	110	72	90.2	0.90		Texarkana ^t	102	60	82.9	0.90		Palermo.....	114	52	80.6	0.00	
Camp Creek.....	105	68	84.6	1.25		Warren ^t	101	62	81.4	1.61		Paso Robles ^b	112	34	65.9	0.00	
Casa Grande ^{*1}	111	88	97.7	0.30		Washington ^{c†}	98	65	81.4	2.81		Peachland ^{*5}	95	50	66.6	T.	
Champie Camp.....	116	72	91.8	0.90		Wiggs ^{*1}	98	60	80.6	7.00		Piedras Blancas L. H. ....	.....	.....	.....	0.00	
Congress.....	107	68	87.0	0.74		Winslow.....	88	55	74.6	3.46		Pigeon Point L. H. ....	.....	.....	.....	0.00	
Dragoon.....	.....	.....	3.90			Witts Springs ^t	91	51	75.8	5.34		Pilot Creek.....	.....	.....	.....	.....
Dragoon Summit ^{*1}	98	60	76.0	2.70		Agnew.....	94	42	65.0	0.00		Pine Crest.....	94	50	68.1	0.00	
Dudleyville.....	104	67	84.5	3.98		Arlington Heights.....	108	52	75.5	0.00		Placerville.....	106	54	75.1	T.	
Empire Ranch.....	96 ^b	63 ^b	78.2 ^b	4.33		Azusa.....	.....	.....	.....	.....		Point Ano Nuevo L. H. ....	.....	.....	.....	0.00	
Flagstaff ^t	99	49	70.9	3.70		Ballast Point L. H. ....	.....	.....	.....	.....		Point Arenas L. H. ....	.....	.....	.....	0.00	
Fort Apache.....	101	50	74.8	4.33		Bear Valley.....	.....	.....	.....	.....		Point Bonita L. H. ....	.....	.....	.....	0.00	
Fort Defiance.....	94	46	69.4	1.97		Berkeley.....	94	50	61.6	0.00		Point Conception L. H. ....	.....	.....	.....	0.00	
Fort Grant ^t	97	57	76.4	2.65		Bishop ^t.....	.....	.....	.....	.....		Point Firmin L. H. ....	.....	.....	.....	0.14	
Fort Huachuca ^t	96	54	75.0	7.84		Blue Lakes City.....	112	46	77.0	0.00		Point Huen					

TABLE II.—*Meteorological record of voluntary and other cooperating observers—Continued.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>California—Cont'd.</i>	0	0	0	Ins.	Ins.	<i>Colorado—Cont'd.</i>	0	0	0	Ins.	Ins.	<i>Georgia—Cont'd.</i>	0	0	0	Ins.	Ins.
Santa Barbara ^a	78	54	65.0	T.		Ruby	45	65.8	50.08	2.73		Americus ^t	102	61	82.8	4.81	
Santa Barbara L. H.	.....	.....	.....	0.00		Saguache ^t	88	45	52.7	2.93		Athens ^b	99	58	78.9	5.43	
Santa Clara ^a	.....	.....	.....	0.00		Salida	92	40	66.4	2.96		Bainbridge	101	63	81.0	6.76	
Santa Cruz ^b	86	41	63.0	0.00		San Luis ^t	88	37	60.4	3.88		Bellville	100	53	80.6	6.93	
Santa Cruz L. H.	.....	.....	.....	0.00		Santa Clara ^a	90	46	62.3	4.56		Blakely ^t	95	65	80.4	8.53	
Santa Maria	85	44	65.8	0.00		Seguro	78	35	56.9	4.28		Brag	101	59	79.4	14.64	
Santa Monica ^{*1}	58	58	71.5	0.00		Seibertt	.....	.....	3.54			Camak	100	59	80.7	7.01	
Santa Paula	87 ^a	49 ^a	65.94	0.00		Smoky Hill Mine	91	38	61.5	2.93		Canton ^t	.....	.....	.....	6.70	
Santa Rosa ^{*1}	96	50	60.5	0.00		Springfield	.....	.....	2.37			Clayton ^t	96	54	75.8	14.39	
Saticoy	.....	.....	.....	T.		Stamford ^{*1}	78	40	51.9	4.71		Columbus	101	61	81.4	6.80	
Shasta	.....	.....	.....	0.00		Steamboat Springs	91	29	60.5	0.00		Covington	96	58	77.7	10.20	
Sierra Madre	97	52	72.4	0.00		Strickler Tunnel	.....	.....	4.41			Crescent	98	62	78.5	12.58	
Sneddens Ranch ^{#1}	96	28	63.5	0.00		Trinidad	.....	.....	2.37			Dahlonega ^t	95	56	75.2	10.62	
Sonoma	.....	.....	.....	0.00		T. S. Ranch ^t	95	49	74.4	0.49		Diamond	98	47	74.5	6.98	
S. E. Farallone L. H.	.....	.....	.....	0.00		Vilas	.....	.....	1.43			Eastman	98	60	81.7	4.66	
Stanford University	94	46	65.4	0.00		Wagon Wheel	81	30	53.7	2.00		Elberton ^t	100	59	79.3	7.72	
Stockton ^a	104	.....	.....	0.00		Walden	87	33	60.8	0.51		Fleming ^t	98	62	80.4	11.11	
Summerdale ^t	95	47	69.6	0.00		Wallet	.....	.....	0.55			Fort Gaines	98	62	81.5	8.27	
Susanville ^t	97	44	68.1	0.00		Wray ^t	101	53	74.4	1.88		Franklin	94	62	78.4	11.76	
Sutter Creek ^b	100	44	72.2	0.00		Yuma	.....	.....	1.86			Gainesville	94	53	77.0	12.12	
Tehama ^{*1}	111	65	87.0	0.00		<i>Connecticut.</i>	96	41	70.1	4.97		Gillsville ^t	99	58	78.4	6.75	
Templeton ^{*1}	113	58	75.2	0.00		Canton ^t	98	47	70.7	5.05		Greenbush	96	59	76.9	9.91	
Trinidad L. H.	.....	.....	.....	0.00		Colchester	.....	.....	2.23			Griffin	100	59	79.8	7.41	
Truckee [*]	98	56	71.4	0.00		Falls Village	.....	.....	5.91			Hephzibah ^{*6}	96	60	80.1	10.40	
Tulare ^b	112	54	88.4	0.00		Greenfield Hill	.....	.....	4.49			Jesup	100 ^{an}	62	81.8 ^a	8.15	
Turlock	105	64	84.4	0.00		Hartford ^b	97	42	72.4	2.84		Lagrange ^t	99	59	80.0	4.76	
Ukiah	103	39	70.6	0.00		Middletown	103	46	74.1	5.24		Leverett	104 ^c	60	80.8 ^a	14.45	
Upperlake	108	48	75.4	0.00		New London	92	52	67.6	4.72		Louisville	101	59	81.1	5.85	
Upper Mattole ^{*1}	97	50	83.8	0.00		Norwalk	98	45	71.4	7.27		Lumpkin	98	62	79.6	10.59	
Vacavillea ^{*1}	111	58	76.9	0.00		Pomfret	90	52	70.8	8.24		Macon	102	61	81.3	6.15	
Ventura ^t	82	41	61.7	T.		Southington	96	44	71.6	3.33		Marietta	93	57	76.2	13.19	
Visalia	114	52	81.4	T.		South Manchester	.....	.....	5.78			Marshallville ^t	95	65	80.3	6.84	
Volcano Springs ^{#1}	124	90	102.2	0.00		Storrs	96	45	69.8	6.24		Mauzy	96	61	80.0	13.86	
Walnut Creek	108	56	76.2	0.00		Voluntown ^t	95	44	70.0	5.73		Millen	104	60	82.6	11.76	
Westpoint	.....	.....	.....	T.		Wallingford	.....	.....	4.96			Morgan ^t	98	60	78.8	5.82	
Wheatland	108	51	78.4	0.00		Waterbury	100	41	52.8	3.37		Mount Vernon	97	61	82.0	9.50	
Williams ^{*1}	109	63	83.8	0.00		West Cornwall ^t	92	46	69.6	1.79		Newman	99	58	78.5	7.37	
Wilmington ^b	83	60	67.0	0.00		West Simsbury	.....	.....	4.59			Point Peter	102	61	79.4	11.51	
Wire Bridge ^{*6}	105	58	79.9	0.00		Winsted ^{*1}	95	55	70.3	.....		Poulant ^t	97	61	79.6	8.36	
Yerba Buena L. H.	.....	.....	.....	0.00		<i>Delaware.</i>	99	55	76.8	2.92		Quitman ^t	99	61	81.5	9.37	
Yreka ^t	105	41	70.8	0.02		Dover	99	55	76.8	2.92		Ramsey	98	59	78.2	6.79	
Yuba City ^{*6}	105	65	83.9	0.00		Milford	99	60	80.0	3.76		Rome ^t	97	60	79.2	7.54	
<i>Colorado.</i>	.....	.....	.....	0.00		Millsboro	98	59	76.5	6.99		Talbotton ^t	98	59	77.9	11.58	
Altman	89	33	52.1	4.75		Newark	98	51	76.6	4.44		Tallapoosa	98	57	77.4	9.42	
Antlers ^t	98	47	74.4	0.88		Seaford	98	57	77.2	2.54		Thomasville ^t	98	62	81.7	10.38	
Boulder	93	50	72.2	0.97		<i>District of Columbia.</i>	98	60	79.0	2.31		Toccoa ^t	97	58	78.0	0.39	
Breckenridge ^t	82	30	55.8	2.19		Distributing Reservoir ^{*5}	97	61	77.9	2.49		Union Point	97	59	78.8	7.26	
Canyon ^t	100	48	74.1	1.83		Receiving Reservoir ^{*5}	102	52	78.6	2.74		Washington ^t	99	60	79.9	7.11	
Cedaredge	95	41	72.4	1.27		West Washington	.....	.....				Waycross	100	61	81.6	10.81	
Cheyenne Wells	97	52	72.8	2.09		<i>Florida.</i>	100	59	78.0	18.18		Waynesboro	98	55	78.4	11.29	
Colbran	.....	.....	.....	T.		Archer ^t	100	59	81.0	9.32		West Point	97	58	81.2	4.88	
Colorado Springs ^t	90	50	67.2	2.98		Bartow	100	52	82.0	9.32		<i>Idaho.</i>	94	40	65.4	0.87	
Crook	104	46	74.5	2.62		Boca Raton ^t	90	70	81.6	5.84		Albany Falls	98	37	70.6	2.00	
Delta	107	46	77.4	0.95		Brooksville ^t	95	68	79.2	12.48		American Falls	98	37	70.0	1.10	
Dumont ^t	.....	.....	.....	1.67		Carrabelle ^t	95	66	82.0	3.10		Blackfoot ^t	97	37	70.0	1.00	
Durango	93	43	69.2	3.46		Clermont	102	68	83.8	7.44		Boise Barracks	111	40	73.0	0.00	
Fleming	.....	.....	.....	1.91		De Funki Springs	99	60	78.6	9.83		Burnside ^t	91	36	66.0	1.53	
Fort Collins ^t	97	44	69.0	0.50		Earnestville	100	69	82.6	6.85		Coeur d' Alene	97	39	65.8	.....
Fort Morgan	109	46	73.6	2.49		Ester ^t	91	73	79.8	6.84		Corral ^{*1}	95	48	65.8	1.49	
Fox	.....	.....	.....	2.50		Federal Point ^t	97	67	80.8	13.01		Downey	96	29	66.4	0.68	
Garnett	90	34	61.8	1.48		Fort Meade	97	67	80.7	7.82		Fort Sherman	101	40	68.0	1.12	
Georgetown	83	44	62.6	.....		Gainesville	100	69	83.4	12.71		Gimlet ^t	92	32	64.8	1.52	
Gleneyrie ^t	85	43	65.2	2.68		Haywood	99	71	83.8	6.42		Gray	91	28	61.5	0.80	
Grand Junction ^t	99	57	79.6	T.		Homeland	99	71	83.8	5.44		Idaho City	94	30	64.0	0.70	
Greeley	97	48	70.2	3.50		Huntington	100	68	82.0	5.44		Lake	86	30	57.0	0.35	
Grover	.....	.....	.....	1.17		Kissimmee	96	70	82.2	7.90		Lakeview	98	46	65.0	0.76	
Gunnison	88	34	64.8	1.98		Lake Butler	100	69	82.8	14.04		Lewiston	100	55	77.6	0.41	
Hamps	95	44	67.5	1.84		Lake City ^t	100	68	81.4	11.96		Lost River	92	35	65.5	1.82	
Hoechne	96	47	71.2	1.36		Lakemont	100	68	82.5	12.32		Marysville	92	28	64.3	1.80	
Holly	.....	.....	.....	3.12		Lemon City	92	70	82.0	5.92		Minidoka	100	38	70.8	.....
Holyoke	.....	.....	.....	3.08		Macclenny ^t	102 ^a	67	82.8 ^a	15.79		Moscow	95	34	64.4	0.79	
Holyoke (near)	103	41	73.4	2.31		Manatee	96	65	80.4	13.93		Murray	98	38	63.6	1.23	
Hugo	.....	.....	.....	2.90		Merritts Island	92	60	81.8	6.12		Nampa	105	41	73.8	T.	

TABLE II.—*Meteorological record of voluntary and other cooperating observers*—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.	
<i>Illinoiſe—Cont'd.</i>	○	○	○	Ins.	Ins.	<i>Indiana—Cont'd.</i>	○	○	○	Ins.	Ins.	<i>Iowa—Cont'd.</i>	○	○	○	Ins.	Ins.	
Chemung	93	44	70.8	2.54	6.34	Jasper †	97	52	79.2	2.00		Jordanola †	95	53	73.8	2.86		
Chester	94	51	76.2	5.05		Jeffersonville	97	53	78.5	3.30	Iowa City a	99	49	75.1	2.27			
Cleſne†	94	51	75.8	3.09	Knightſtown†	99	47	77.2	4.25	Iowa Falls†	96	44	72.0	1.73				
Coatsburg	98	51	75.8	3.09	Kokomo †	93	49	75.4	2.65	Keosauqua	97	52	76.0	3.07				
Cobden†	94	53	76.8	7.35	Lafayette†	95	47	75.4	1.87	Knoxville	97	53	74.7	4.32				
Danville	98	45 ^b	75.0	2.24	Laporte	97	49	78.1	2.01	Lamoni †	95	52	73.8	2.53				
Decatur†	99	46	76.6	1.07	Logansport b †	96	50	76.3	1.94	Lansing	94	46	72.6	3.12				
Dixon †	98	50	74.6	1.55	Madison	96	52	78.3	1.87	Larchwood	98	47	70.8	5.06				
Dwight†	99	45	74.8	0.39	Marengo †	97	48	77.8	1.24	Larrabee†	94	53	72.5	3.34				
Effingham†	97	52	77.2	3.17	Marion†	99	44	76.2	2.10	Leclaire	96	54	73.7	3.11				
Elgin	94	48	72.8	0.75	Markle	97	45	75.4	3.10	Lemars	94	53	72.5	3.34				
Equality	97	58	79.5	3.60	Manuzy†	97	44	75.6	2.66	Lenox	96	54	73.7	3.11				
Fort Sheridan	94	48	72.6	1.65	Mount Vernon†	98	62	81.8	3.16	Logan†	99	48	74.3	1.50				
Friendgrove†				6.28		Northfield†	95	44	74.3	4.62	Maple Valley				2.88			
Galva†	97	49	74.3	0.96	Paoli	98	46	78.0	1.91	Maquoketa	96	48	72.6	2.45				
Glenwood * ^a	93	58 ^b	73.4 ^b	3.97	Princeton ^{*1}	99	56	76.7	2.25	Marshall†	96	49	73.6	2.67				
Grafton				5.08		Richmond	96	44	75.1	4.61	Mason City	92	50	72.4	3.03			
Grayville	98	57	79.8	2.64	Rockport	98	58	78.6	3.33	Milligan				1.84				
Greenville†	96	52	77.3	4.37	Rockville†	95	49	75.4	2.12	Monticello	98	50	75.4	1.71				
Griggsville†	95	55	75.6	3.56	Salem					Moar	100	46	74.8	2.35				
Halfway				2.19		Scottsburg	97	51	78.9	1.57	Mountayr	95	54	73.8	3.69			
Halliday * ³	95	66	75.7	7.12	Seymour	96	54	77.5	3.95	Mount Pleasant * ¹	92	63	76.1	2.49				
Havana†	96	55	77.8	2.49	Shelbyville					Mount Vernon a * ¹	95	58	75.5	3.20				
Henry	100	45	75.8	1.10	South Bend†	101	46	75.3	1.94	Mount Vernon b	98	52	74.2	3.18				
Hillsborouſ	98	49	76.2	5.85	Syracuse†					Neola	100	42	75.4	1.90				
Joliet†	97	48	74.4	1.59	Terre Haute†	96	54	78.4	1.40	New Hampton	91	47	71.7	3.05				
Kankakee a	100	48	76.1	1.69	Topeka†	94	45	73.4	2.87	Newton†	97	52	74.6	1.43				
Kishwaukee	95	43	71.2	2.06	Valparaiso†	96	50	73.2	3.00	North McGregor				3.51				
Knoxville a	96	45	73.8	0.97	Vevay	98	60	80.6	5.55	Northwood	94	48	70.8	1.80				
Lagrange†	95	46	73.4	2.77	Vincennes	101	56	79.6	2.87	Odebolt	100	50	74.3	5.05				
Laharpe†	96	51	75.4	2.35	Warsaw	95	47	74.0	2.46	Odgen	99	50	73.0	1.69				
Lanark†	100	41	73.2	2.00	Washington†	97	53	78.4	2.07	Olin	97	51	73.0	1.51				
Lexington	98	44	74.1	1.32	Winamac	102	42	75.9	3.44	Osage * ³	57	71.0	2.85					
Loamit				2.09	Worthington†	98	48	76.8	3.85	Oscceola	94	52	73.4	4.77				
McLeansborouſ†	97	54	77.8	3.57						Oskaloosa†	99	48	74.0	3.44				
Martinsville	100 ^c	48 ^c	77.2 ^c	1.15						Ottumwa	98	52	74.2	3.52				
Martinton†	101	44	75.4	1.11						Ovid†	98	52	73.7	6.29				
Mascoutah * ^a	96	55	76.6	4.84						Pella	92	52	70.8	2.89				
Mattoon	100	46	76.6	1.66						Pioneer	98	52	74.4	0.55				
Minonk†	97	44	73.8	0.68						Plover	97	50	74.2	3.30				
Monmouth†	98	45	74.2	1.50						Primghar	95	48	73.1	4.52				
Morrisonville†	95	50	74.4	2.74						Red Oak	99	51	74.8	3.37				
Mount Carmel†				3.57						Ridgway	94	52	73.1	3.64				
Mount Pulaski	101	52	78.2	0.56						Rock Rapids	94	50	69.7	1.95				
Mount Vernon	95	50	75.2	6.43						Rockwell City	96	50	72.7	2.12				
New Burnſide†	99	51	77.9	5.82						Ruthven	96	50	74.2	3.74				
Olney a	98	50	77.8	4.76						Sac City†	94	50	70.6	1.55				
Oſewego * ^a	96	52	72.5	2.23						Sibley	93	47	70.5	2.69				
Ottawa†	100	47	75.1	1.30						Sidney	96	59	74.6	9.90				
Paleſtine†	97	51	77.0	2.80						Sigourney	102	51	75.8	3.86				
Pana	97	49	77.2	2.34						Spencer	95	50	71.6	4.09				
Paris	98	49	77.2	1.67						Spirit Lake†	98	51	73.6	3.46				
Peoria a†				0.58						Stuart	96	55	74.4	4.15				
Peoria b†	98	50	77.4	0.47						Tara	97	47	71.0	0.90				
Philot†	96	48	75.0	1.98						Thurman	96	50	73.8	12.88				
Plumhill†	98	52	75.8	6.02						Toledo	96	47	72.9	1.36				
Rantonl†	99	49	75.8	1.87						Villisca	94	50	72.6	2.25				
Reynolds	96	51	74.4	1.15						Vinton ^{*1}	96	56	73.6	0.83				
Riley†	93	50	73.7	2.27						Wapello	98	50	75.1	1.29				
Robinson	97	49	77.4	1.78						Washington	97	50	73.9	1.67				
Rockford	95	50	74.3	2.83						Washta				3.04				
Roundgrovē†	99	49	75.8	1.68						Waterloo	97	46	73.7	1.66				
St. Charles * ¹	95	53	73.0	1.74						Waverly	94	50	72.6	2.28				
St. John†	96	56	78.0	7.53						Webster City	97	52	74.4	1.35				
Scales Mound	97	44	71.8	3.75						Westbend * ¹	96	54	71.4	2.93				
Streator†	97	55	76.4	0.62						West Branch	98	44	73.7	1.14				
Sycamore†	95	44	72.2	1.22						Whitten * ¹	96	52	74.0	1.38				
Tilden	95	51	76.4	6.91						Wilton Junction†	98	47	74.6	2.08				
Tiskilwa†	96	51	74.8	1.17						Winterset†	95	49	72.4	7.73				
Tuscola†	97	44	75.6	3.78						Ailine†	101	54	78.9	2.53				
Walnut†	97	50	76.1	1.20						Achilles	98	53	74.4	4.82				
Wheaton * ³	96	56	72.2	1.90						Altoona * ³	98	62	77.0	2.00				
Winchester * ¹	96	54	74.2	3.30						Anthony	96	56	75.8	3.09				
Winnebagot	93	48	72.6	2.74						Atchison†	96	56	75.8	4.27				
<i>Indiana.</i>										Augusta	100	50	78.4	4.27				
Anderson†	95	47	75.5	3.46						Baker	98	53	76.6	3.07				
Angola	95	47	73.8	3.91						Beloit†	106	54	77.0	2.32				
Auburn *	99	44	74.3	4.67						Burdett	99	53	77.6	2.86				
Bedford	101	45	74.8	1.11						Campbell	104	53	78.4	1.37				
Bloomington†	97	52	77.8	2.69						Chanute	98 ^c	56	79.6 ^c	1.08				
Bluffton†	98	42	75.0	3.57						Colby†	104	47	74.2	1.35				
Boonville	100	55	79.1	3.27						Columbus	94	52	77.4	6.30				
Bright	102	52	77.6	2.83						Coolidge†				2.16				
Butlerville†	99	46	77.0	2.22						Cunningham†	107	49	79.0	3.45				
Cambridge City†	97	42	74.8	2.07						Delphos	107	53	79.5	0.98				
Columbia City * ¹	95	48	75.1	3.27						Dresden	98	52	77.3	3.65				
Columbus†	97	44	75.7	2.04														

TABLE II.—*Meteorological record of voluntary and other cooperating observers—Continued.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.										
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.									
Kansas—Cont'd.	○	○	○	Ins.	Ins.	Louisiana—Cont'd.	○	○	○	Ins.	Ins.	Maryland—Cont'd.	○	○	○	Ins.	Ins.									
Fort Scott†	98	56	78.4	2.43		Bastrop†	99	60	81.2	7.32		Woodstock	102	51	78.1	3.15										
Frankfort	102	50	76.4	1.25		Baton Rouge†	97	65	81.3	10.76		Massachusetts.														
Garden City	103	52	76.8	2.59		Calhoun	97	62	80.4	3.81		Adams	98	35	70.5											
Gibson	104	48	76.6	0.93		Cheneyville†	99	63	81.3	6.44		Amherst	95	42	71.5	2.65										
Gove*	100	58	79.9	1.27		Clinton†	93	64	79.6	11.99		Attleboro	95	49	70.1	4.96										
Grenola	97	52	77.1	6.21		Como	96	62	80.4	7.41		Bedford	95	51	69.7	7.41										
Halstead	102	52	77.4	2.40		Covington	98	61	81.2	7.13		Bluehill (summit)	97	51	69.7	5.57										
Hays	108	48	77.1	2.36		Donaldsonville	96	67	82.0	5.80		Chestnut Hill	98	51	72.2	6.98										
Horton	99	56	76.3	2.62		Emilie	97	62	79.8	8.14		Cohasset	97	45	70.3	5.80										
Hoxie	46	.....	1.02			Farmerville	95	62	70.7	9.04		Concord	99*	48	71.0	5.87									
Hutchinson	.....	.....	3.20			Franklin†	95 ^b	73 ^b	85.1 ^b	6.38		Dudley ¹	94	52	70.3	2.18								
Independence	102	58	80.2	5.43		Grand Coteau	98	65	81.8	7.39		East Templeton* ¹	94	56	71.2	5.55										
Lawrence	98	58	78.0	1.35		Jeanerette	102	64	81.7	4.84		Fallriver	94	56	71.2	6.97										
Lebanon	103	.....	1.10			Jennings	99	59	79.2	5.18		Fitchburg a* ¹	93	54	71.4	2.84									
Lebo†	97	56	77.3	4.81		Lafayette	98	63	81.8	5.28		Fitchburg b	96	42	71.6	3.23										
Macksville	102	47	75.4	2.10		Lake Charlest.	100	67	82.4	5.05		Framingham	100	48	72.8	3.98										
McPherson	104	53	78.4	2.53		Lake Providence	95	.....	.....	7.63		Groton	95	41	69.7	3.05								
Manhattan b	100	56	77.9	2.48		Lawrence	96	60	81.0	7.82		Hyannis* ¹	88	56	70.0	3.85										
Manhattan c	98	52	76.4	2.47		Liberty Hill	103	62	81.8	3.21		Jefferson	.....	.....	.....	3.00							
Marion†	103	55	80.6	2.43		Mansfield	98	59	80.2	4.30		Lawrence	97	50	72.2	2.74										
Meade†	110	53	79.6	4.73		Melville	97	63	81.1	7.74		Leeds	97	39	71.2	3.37										
Medicine Lodge†	106	52	79.7	1.65		Minden	101	61	81.5	3.94		Leicester Hill	95	46	70.8	2.12										
Minneapolis†	106	52	80.2	1.52		Monroe†	98	63	82.0	6.90		Leominster	.....	.....	.....	3.03							
Morantown†	96	56	78.7	2.23		Montgomery	100	63	82.2	5.52		Long Plain	.....	.....	.....	6.54							
Mouthopoe* ¹	102	65	78.9	2.73		New Iberia	95	66	81.6	3.75		Lowell a	96	49	72.9	2.93										
Ness City	104	62	80.2	2.18		Oakridge	100	62	81.4	6.39		Lowell b	97	46	71.4											
Newton	103	54	77.6	2.16		Opelousas	97	62	80.5	3.66		Ludlow	95	39	68.7	4.67										
Norton	.....	.....	4.98			Oxford	97 ^a	58 ^a	79.9 ^a	4.30		Mansfield* ¹	99	50	70.1	9.26								
Norwich	.....	.....	3.63			Paincourtville†	100	64	82.2	3.62		Middleboro	96	46	70.0	7.78								
Oberlin	.....	.....	5.30			Plain Dealing†	98	58	80.7	2.94		Monson	96	43	70.8	6.14								
Olathe†	96	54	76.9	5.93		Plaquemine	96	66	81.4	4.58		New Bedford a	92	54	69.9	6.04										
Osage City†	100	54	77.6	2.02		Rayne†	100	65	81.5	3.99		New Bedford b	94	49	69.2	5.74										
Oswego	98	54	77.6	6.80		Robeline	99	55	78.3	4.44		New Salem	92	47	70.0	1.95										
Ottawa	97	50	75.3	3.46		Ruston	97	61	78.2	3.94		Pittsfield	95	43	70.7	2.87										
Phillipsburg	.....	.....	3.44			Schriever	96	64	81.4	6.46		Princeton	.....	.....	.....	2.68					
Pratt	.....	.....	5.10			Shellbeach	96	69	82.7	6.05		Provincetown	89	54	70.6	6.26								
Rome* ¹	101	55	77.0	2.52		Southern University	94	63	78.4	10.05		Somerset* ¹	100	54	73.2	5.78										
Russell	108	50	78.6	1.87		Sugar Ex. Station†	96	67	81.6	6.19		South Clinton	.....	.....	.....	3.57							
Salinat†	95	58	79.9	2.61		Sugartown	97	65	81.3	5.90		Springfield Armory	97	42	70.3	4.54										
Sedan†	97	54	78.8	5.83		Venice†	91	70	80.6	8.46		Sterling	.....	.....	.....	2.78							
Toronto	101	50	77.2	2.27		Wallace	98	60	81.1	9.68		Taunton b	97	46	70.2	9.52										
Ulysses	.....	.....	2.87			White Sulphur Springs	100	62	80.3	5.97		Taunton c	97	46	70.2	8.89								
Viroqua†	105	52	77.6	2.82		Bar Harbor	96	45	66.4	1.70		Turners Falls	95	43	71.4	2.46										
Wallace	.....	.....	3.47			Belfast*	89	56	66.8	1.38		Webster	.....	.....	.....	6.02					
Wamego* ¹	98	60	78.0	3.15		Calais	94	44	66.6	1.14		Westboro†	96	46	72.8	4.00										
Wellington	.....	.....	4.32			Cornish†	93	53	70.3	1.46		Weston	95	48	70.5	5.38								
Yates Center	99	52	77.2	3.78		Cumberland Mills	100	48	70.7	1.24		Williamstown	90	41	69.0	1.48										
<i>Kentucky.</i>																										
Alpha ²	.....	.....	78.3	7.83		Fairfield	94	47	69.8	1.13		Winchendon	.....	.....	.....	2.04					
Ashland	100	51	78.8	5.85		Farmington	96	40	68.9	2.80		Worcester d	90	37	69.7	3.20										
Bardstown†	98	54	78.6	5.85		Flagstaff	91	30	64.4	1.05		<i>Michigan.</i>														
Blandville†	94	57	77.6	7.88		Gardiner	101	49	71.6	0.98		Adrian	96	45	73.6	3.98										
Bowling Green b†	99	60	79.2	2.19		Kineo	91	49	69.6	0.90		Agricultural College	96	40	70.0	1.34										
Burnsides†	.....	.....	5.27			Lewiston	98	50	71.1	2.35		Allegan	96	40	72.6	0.72								
Caddo	98	54	78.0	3.38		Mayfield* ¹	94	43	67.4	1.52		Alma	97	37	71.0	0.98										
Canton* ¹	97	60	77.3	5.14		North Bridgton	96	42	70.2	5.42		Ann Arbor	98	44	74.0	1.45										
Carlisle	96	50	77.3	6.05		Orono	99	39	68.6	2.44		Arbela	95	39	71.8	1.57										
Carrollton	.....	.....	1.08			Petit Meau* ¹	75	53	61.0	1.36		Badaxe	96	36	71.0	0.87								
Cattlettsburg	.....	.....	4.84			Winslow	96	42	69.8	1.95		Baldwin	96	25	69.8	3.12								
Earlington	99	52	79.0	4.17								Ball Mountain	95	42	71.4	1.46										
Edmonton†	92	56	76.2	3.15								Baraga	95	36	67.4	3.42										
Ensor	99	54	78.0	2.98								Battle Creek	100	42	74.8	0.91										
Eubank	94	50	75.4	4.16								Bay City b	94	42	70.2	1.38										
Falmouth†	.....	.....	5.76									Berlin	95	33	69.7	0.88								
Fords Ferry	97	54	77.7	5.46								Berrien Springs	98	42	76.2	1.85										
Frankfort	94 ^a	52 ^a	77.0 ^a	3.86								Big Rapids	98	32	67.3	3.29										
Georgetown	96	56	78.0	2.98								Birmingham	99	48	74.0	1.86										
Greensburg†	101	49	78.2	4.94								Boon	94	28	66.0	1.43										
Henderson†	98	57	79.7	2.81								Calamet	90	41	65.3	2.60										
Hopkinsville†	97	57	78.8	4.00								Camden	99	42	73.5	3.04										
Irvington	96	52	77.7	0.44								Carsonville	94	40	70.4	1.32										
Leitchfield†	95	55	76.9	4.35								Charlevoix	95	45	69.8	1.03										
Loretto	97	48	77.1	5.20								Cheboygan	94	37	68.7	2.50										
Maysville	102	48	78.2	6.40								Clinton	101	41	74.1	1.77										
Middlesboro†	99	53	76.3	6.97								Coldwater	96	42	72.4	2.60										
Mount Hermon	95	56	77.1	3.69								Crips* ¹⁰	90	39	64.9											
Mount Sterling†	98	55	77.7	4.05								East Taw														

TABLE II.—*Meteorological record of voluntary and other cooperating observers—Continued.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.			Stations.	Temperature. (Fahrenheit.)			Precipita- tion.			Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.	Ins.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.	Ins.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.	
Michigan—Cont'd.							Minnesota—Cont'd.							Missouri—Cont'd.						
Holland ^{*10}	°	°	71.2	.....			Lakeside†	°	°	°	0.17			Avalon	°	°	°	Ins.	3.92	
Howell	86	50	73.8	0.27			Lake Winnibigoshish	90	42	66.6	3.88			Bethany	95	57	75.0	Ins.	4.88	
Humboldt	90	31	63.4	0.76			Leech Lake	93	42	68.1	5.37			Birchtree	92	52	74.6	5.46		
Ionia	99	40	71.1	0.40			Long Prairie	92	41	69.2	4.78			Boickow	.....			4.98		
Iron River	89	38	62.9	2.98			Lutsen	81	43	60.0	4.35			Boonville†	.....			3.65		
Ivan	96	32	70.2	0.39			Luvernet†	94	50	71.2	1.79			Brunswick	94	58	75.8	3.06		
Jackson	99	42	73.0	1.54			Lynd	93	45	69.6	2.69			Carrollton†	95	58	76.4	4.13		
Jeddo	94	41	69.6	1.40			Mapleplain	92	51	71.5	3.18			Conception	92	60	74.8	10.27		
Kalamazoo	98	44	74.4	0.53			Milaca	93	43	69.0	2.63			Cowgill ^{*6}	98	60	77.4	5.53		
Lake City	94	34	68.9	0.50			Milan†	95	45	70.6	4.19			Darksville	95	54	75.6	5.60		
Lansing	96	42	71.7	1.36			Minneapolis ^a	92	48	71.5	0.51			Downs	.....			4.09		
Lapeer	95	39	70.2	0.94			Minneapolis ^b ¹	93*	46	71.0	3.24			East Lynne ^{*3}	98	56	72.6	5.51		
Lathrop	92	34	64.4	2.91			Montevideo	96	47	70.3	2.88			Edgehill ^{*5}	90	52	74.0	15.06		
Ludington	86	42	69.0	0.67			Morris	94	46	70.9	5.88			Eightmile ^{*1}	92	57	73.6	5.68		
Luzerne	94	29	67.2	1.00			Mount Iron	90	38	65.0	5.88			Eldon	101	47	79.8	3.91		
Mackinaw City	92	35	66.2	0.92			Newfolden	92	38	67.2	7.15			Elmira	97 ^d	50 ^d	75.4 ^d	3.73		
Madison	97	46	74.4	2.35			New London	96	48	72.4	4.97			Fairport	.....			6.50		
Mancelona	93	31	68.0	1.05			New Richland ^{*1}	91	54	72.1	.....			Farmersville	.....			4.44		
Manistee	90	38	67.7	0.98			New Ulm†	93	40	71.8	0.54			Fayette	99	57	79.8	3.87		
Manistique	84	37	63.1	0.86			Park Rapids†	91	41	66.4	5.67			Fulton	.....			6.75		
Middle Island ^{*10}	92	53	68.5	.....			Pine River	88	45	67.3	5.09			Gallatin ^{*1}	97	57	76.6	5.69		
Midland	98	40	69.5	1.21			Pipestone	.....						Gordonville ^{#3}	63	74.5	3.57			
Mottville	101	40	73.1	3.11			Pleasant Mounds	91	49	70.5	1.53			Gorin	.....			6.15		
Mount Clemens ^b	98	43	72.2	2.21			Pokegama Falls	89	40	65.5	5.40			Halfway	95	50	76.0	7.59		
Mount Pleasant ^b	39	.....	.....	1.39			Redwing	.....						Harrisonville†	96	53	76.7	6.27		
Muskallongee Lake ^{*10}	90	38	63.2	.....			Reeds	.....						Hermann†	.....			6.66		
Muskegon	92	48	71.4	1.25			Rolling Green	91	51	70.6	1.60			Houston	95	47	76.2	3.94		
Newberry	91	28	63.0	2.11			St. Charles†	95	50	72.0	1.65			Houstonia	.....			5.43		
North Manitou Island ^{*10}	89	39	70.8	.....			St. Cloud	96	48	70.3	1.83			Irena	.....			4.14		
North Marshall	97	37	73.0	0.73			St. Olaf	91	43	69.0	2.22			Ironon†	94	47	74.8	9.14		
Northport	91	41	68.0	0.55			St. Peter	91	.....					Jefferson City†	100	55	77.8	3.97		
Old Mission	95	45	70.8	0.75			Sandy Lake Dam	89	41	66.3	2.80			Kidder	96	56	74.3	4.91		
Olivet	95	44	71.8	1.67			Sauk Center	92	42	71.0	3.52			Lamar†	96	55	78.1	4.42		
Omer	93	29	68.2	1.05			Shakopee	91	52	74.1	1.25			Lamotte	.....			4.75		
Ottawa Point ^{*10}	88	44	69.9	.....			Slayton	92	40	68.6	0.60			Lebanon	92	54	75.5	5.64		
Ovid	99	42	72.2	2.02			Tower†	96	.....					Lexington	97	55	77.0	5.40		
Owosso	99	42	72.2	1.80			Two Harbors	92	42	64.4	1.37			Liberty	96	53	75.6	5.40		
Parkville	100	41	73.8	1.73			Wabasha ^{*1}	101	54	72.6	1.24			Louisiana	96	50	76.6	4.66		
Pentwater ^{*10}	86	52	70.9	.....			Willmar	94	48	70.3	2.47			McCune ^{*1}	98	58	76.2	6.43		
Petroskey	91 ^e	37	65.9	1.76			Willow River	94	39	68.0	5.30			Malden ⁴	93	60	79.5	1.15		
Plymouth	97	40	72.4	2.09			Winnebago City	93	51	72.2	1.57			Marblehill	97	48	75.4	5.28		
Pointe aux Barques [*] 10	92	46	70.3	.....			Worthington	91	50	69.8	1.05			Marshall†	95	54	75.3	2.63		
Point Betsie ^{*10}	81	52	69.0	.....			Zumbrota ¹	93*	44	72.5	.....			Maryville	96	50	74.5	7.78		
Port Austin	92	37	68.3	.....			Mississippi.							Mexico†	99	52	77.2	4.04		
Powers	93	34	67.6	2.15			Aberdeen	101	57	80.3	3.73			Miami	.....			3.82		
Reed City	96	29	67.5	.....			Agricultural College	94	62	80.4	4.32			Mineralspring	92	49	74.2	12.07		
Rockland	90	43	67.2	.....			Austin†	97	61	80.3	3.66			Montreal	94	47	74.3	4.69		
Rogers	94	38	68.0	0.45			Batesville†	94	60	79.2	3.49			Mount Vernon	96	52	78.0	6.24		
Saginaw	96	40	73.1	2.21			Bay St. Louis	99	69	81.4	4.85			Neosho	94	47	76.6	9.17		
St. Ignace	96	34	66.1	4.55			Biloxi†	97	66	81.0	7.00			Nevada	94	53	75.6	3.01		
St. Johns	97	42	73.3	1.54			Booneville	97	59	80.1	3.39			New Haven	95	56	77.0	6.64		
St. Joseph	97	50	73.5	1.74			Briars	93	64	79.2	5.24			New Madrid	96	56	78.8	7.00		
Sandbeach ^a	92	36	69.4	0.20			Ebrookhaven†	101	63	82.0	6.30			New Palestine	95	56	78.8	2.49		
Sidnaw	90	34	66.5	.....			Canton†	96	62	79.4	6.07			Oakfield	95	55	77.0	6.77		
Somerset	96	40	72.2	2.74			Columbus ^a	.....						Olden†	92	51	74.8	3.06		
South Haven	92	44	71.2	0.58			Columbus ^b	104	59	82.8	4.39			Oregon ^a	96	56	75.4	4.45		
Sturgeon Point ^{*10}	92	40	68.4	.....			Corinth	97	60	79.9	6.94			Oregon ^b	95	58	77.2	4.62		
Thomaston	93	30	70.0	1.28			Crystal Springs†	93	62	78.8	6.26			Otto	.....			6.45		
Thornville	94	42	72.0	1.24			Edwards	97	65	81.5	4.59			Palmyra ^{*5}	96	63	78.4	4.25		
Traverse City	95	38	68.0 ^c	0.94			Fayette	97	62	80.4	2.50			Phillipsburg ^{*1}	94	60	75.2	6.13		
Two Heart River ^{*10}	90	34	63.3	.....			French Camps	97	53	77.3	9.42			Pickering ^{*3}	93	58	70.8	10.28		
Valley Center	96	33	66.1	0.60			Greenville ^a	93	66	79.7	1.69			Platte River	96	54	74.8	3.63		
Vandalia	96	42	74.2	1.75			Greenville ^b	97	65	80.6	1.57			Potosi	93	49	69.6	7.70		
Vassar	96	36	70.6	2.30			Greenwood	93	64	80.6	8.14			Princeton	104	53	76.8	8.49		
Vermillion Point ^{*10}	88	34	58.7	.....			Hattiesburg†	98	65	81.7	6.14			Rhineland	96	50	75.4	6.98		
Wasepi	95	42	72.2	2.36			Hazlehurst	97	68	80.0	5.65			Richmond	95	37	76.0	4.81		
Waverly	95	38	70.6	1.14			Hernando	98	60	80.8	2.13			Rolle	.....			6.34		
West Harrisonville	90	39	66.6 ^c	0.29			Holly Springs†	96	60	79.4	6.54			St. Charles	96	54	76.8	6.99		
Wetmore	91	30	64.0	2.32			Jackson†	93	62	80.0	9.40			St. Joseph	99	56	76.4	4.90		
White Cloud	97	35	74.3	1.24			Lake†	92	59	78.2	11.17			Sarcocie ^{*3}						

TABLE II.—*Meteorological record of voluntary and other cooperating observers—Continued.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>Montana—Cont'd.</i>						<i>Nebraska—Cont'd.</i>						<i>Nevada—Cont'd.</i>					
Dupuyer.....	95	38	64.4	Ins.	Ins.	Lodgepole.....	101	39	71.2	1.60	Ins.	Panaca.....	o	o	o	Ins.	Ins.
Fort Benton.....	92	43	67.2	0.80		Loup b*.....	95	54	73.9	1.93		Reno *1.....	109	44	76.4	0.96	
Fort Keogh t.....	104	43	72.7	0.90		Lynch *1.....	95	54	72.5	4.85		Reno State University.....	104	56	77.0	T.	
Fort Logan.....	87	37	63.0	1.76		Lyons.....				0.46		Ruby Valley.....	99	44	70.2	0.00	
Glasgow.....	101	41	69.0	1.58		McCook.....				1.68		St. Clair.....	100	45	72.9	0.00	
Glendive t.....	103	44	73.0	0.40		McCool.....				0.25		St. Thomas.....	114	60	88.6	0.00	
Glenwood.....	92	33	63.8	1.34		Madison.....	95	50	72.9	0.90		Silverpeak.....	107	51	80.7	T.	
Greatfalls t.....	97	45	67.1	2.30		Madrid *5.....	104	55	76.4	0.63		Sodaville.....	105	48	79.0	0.12	
Kalispell.....	95	50	70.0	1.15		Marquette.....				0.62		Spring Valley.....	104	49	75.6	T.	
Kipp t.....	93	34	60.5	1.03		Merriman.....	98	50	74.6	1.50		Tecoma *1.....	106	40	75.3	0.00	
Livingston t.....	90	40	65.5	1.23		Minden a.....				1.47		Tuscarora *1.....				0.22	
Manhattan t.....	91	34	64.7	0.63		Minden b.....				1.25		Tybo.....				0.00	
Martinsdale.....	94	36	63.8	1.16		Monroe.....				0.91		Verdi *1.....	106	40	70.6	0.00	
Marysville t.....	86	34	61.3	2.86		Nebraska City c.....	102	53	73.9	2.65		Wadsworth *1.....	106	50	78.4	0.00	
Missoula.....	41	.....	0.76			Nemaha *1.....	101	55	77.4	4.56		Wells.....	99	36	70.3	0.18	
Parrot.....	93	39	66.2	0.73		Nesbit.....	100	45	71.6	2.25		<i>New Hampshire.</i>					
Poplar.....	103	42	70.2	1.34		Norfolk b.....	95	.....		1.60		Alstead *6.....	90	45	73.4	2.16	
Radersburg.....			0.40			Norman.....				2.35		Berlin Mills.....	94	32	68.4	4.28	
St. Pauls t.....	93	40	65.2	1.92		North Loup.....	99	49	74.5	0.99		Bethlehem.....	90	38	68.4	2.55	
Troy.....	100	37	65.2	1.00		Oakdale.....	99	50	74.4	2.15		Brookline *1.....	98	50	72.5	2.77	
Utica.....	93	33	62.9	3.16		Odell *5.....	98	58	76.8	1.08		Clarendon.....	98	39	71.8	0.81	
Wibaux.....	98	32	65.2	0.60		O'Neillt.....	95	48	69.9	3.87		Concord.....	96	38	71.0	1.31	
Yale.....	92	35	61.8	3.32		Ord.....	104*	49*	75.2*	0.91		Durham.....	98	48	70.8	1.76	
<i>Nebraska.</i>						Osceola.....				0.40		Hanover.....	96	39	70.4	1.20	
Agee *1.....	99	56	73.5	3.05		Ought t.....				1.28		Keene.....	96	37	70.4	1.25	
Albion.....	93	48	71.9	1.11		Palmer b.....				0.97		Lancaster.....	91	39	69.1	2.05	
Alliance.....			4.76			Plattsburgh a.....	96	46	74.2	2.19		Littleton.....	100	43	71.3	5.04	
Alma *1.....	98	56	74.9	2.09		Ravenna a.....				1.59		Nashua.....	97	41	69.2	1.68	
Ansley t.....	98	41	72.8	1.42		Redcloud a.....				1.13		Newton.....	92	35	69.4	1.61	
Arapaho *1.....	98	59	76.4	1.85		Redcloud b*1.....	102	60	78.3	1.63		Peterboro.....	98	35	71.5	2.31	
Arborville *1.....	100	54	74.6	0.46		Republican *1.....	100	56	79.7	1.30		Plymouth.....	93	38	68.8	2.97	
Ashland a*.....	98	52	76.4	1.18		Rulo *1.....	100	60	77.6	3.22		Sanbornton t.....	93	32	68.0	2.46	
Ashland b*.....	104	63	78.2	1.66		St. Libory.....	93	52	75.6	1.49		Stratford.....				1.98	
Ashton.....	98	50	74.8	0.88		St. Paul.....	98	54	76.8	1.38		Warner.....					
Auburn *1.....	102	54	75.0	2.70		Salem *1.....	96	60	75.9	2.13		<i>New Jersey.</i>					
Aurora.....			0.69			Santee Agency t.....	105	52	76.0	6.16		Asbury Park.....	102	57	74.0	11.72	
Bassett.....			4.12			Sargent.....				1.83		Bayonne.....	103	53	76.2	4.28	
Beatrice t.....			2.98			Schuyler.....				0.27		Belvidere.....	101	45	75.2	4.69	
Beaver City t.....	101	50	75.2	1.60		Seneca *1.....	96	47	70.8	5.00		Bergen Point.....	100	57	75.4	5.25	
Bellevue.....			3.25			Seward *1.....	98	60	75.4	0.92		Beverly t.....	104	51	77.9	2.95	
Benedict.....			0.30			Springview.....	101	48	74.9	2.14		Billingsport *1.....	97	62	77.4	3.89	
Benkelman.....			2.85			Stanton.....	95	50	74.2	1.32		Boonton.....	101	47	74.6	4.09	
Blair.....	96	51	73.9	1.38		State Farm.....				6.60		Bridgeton.....	102	53	78.8	5.34	
Bluehill.....			0.67			Stockham.....				0.80		Camden.....	96	54	76.1	4.78	
Brokenbow.....			2.03			Strang *1.....	97	58	77.2	0.80		Cape May C. H. t.....	95	56	74.6	3.59	
Burchard.....			1.95			Stratton.....				2.52		Charlottesville.....	99	38	76.6	4.50	
Burwell.....			2.33			Superior *5.....	96	60	76.4	1.15		Chester.....	96	46	73.0	4.21	
Callaway t.....	100	49	76.2	2.60		Syracuse.....				2.83		Clayton.....	102	50	76.8	2.95	
Camp Clarke.....	104	42	72.0	2.13		Tablerock.....	99	54	78.6	2.35		College Farm t.....	103	48	76.0	3.91	
Central City *5.....	102	60	80.2	0.40		Tecumseh b*.....	104	32	77.8	1.45		Deckertown.....	99	42	73.2	3.79	
Cody.....			2.90			Tekamah.....	98	51	73.9	1.99		Dover.....	102	44	74.0	3.71	
Columbus t.....	95	42	72.0	0.82		Theford *1.....	98	54	70.4	5.50		Egg Harbor City.....	101	49	76.0	5.82	
Creighton t.....	99	47	73.8	2.96		Turlington t.....	101	55	76.8	3.09		Elizabeth t.....	105	52	76.2	4.17	
Crete.....	99	51	75.0	1.84		Valentine t.....	100	42	73.4	2.28		Englewood.....	102	44	74.7	5.66	
Culbertson.....			1.44			Valparaiso.....				T.		Flemington.....	104	46	76.4	6.27	
Curtis a.....	101	52	74.7	2.56		Wakefield.....	97	50	72.8	2.08		Franklin Furnace.....	96	42	72.7	5.61	
David City.....	95	49	74.4	0.70		Wauneta.....				2.81		Freehold.....	96	50	74.4	7.07	
Dawson.....	99	52	75.0	2.30		Weeping Water *1.....	95	50	71.0	2.22		Friesburg.....	102	53	77.2	3.58	
Divide.....			1.06			Westpoint t.....	99	50	75.2	0.80		Gillette.....	100	47	73.4	6.15	
Eden.....			3.24			Whitman.....				2.00		Hammonton.....				4.80	
Edgar *1.....	100	58	79.4	0.79		Wilber t.....	97	50	74.6	1.55		Hanover.....	96	45	72.8	3.94	
Elba.....			1.10			Willard.....				1.50		Hightstown.....	101	51	76.8	4.87	
Ericson *1.....	98	61	79.6	1.91		Wilsonville *1.....	100	58	78.1	1.92		Inlaystown.....	104	50	78.1	5.51	
Ewing t.....			3.30			Wymore *1.....	96	60	74.3	1.78		Junction.....				4.88	
Fairbury t.....	103	49	75.2	0.80		York *1.....	104	58	76.6	0.38		Lambertville.....	102	49	78.0	3.06	
Fairfield.....			0.60			Nevada.....				0.12		Moorestown.....	100	51	76.8	4.01	
Fairmont t.....	102	50	74.2	T.		Austin.....	98	38	70.9	0.40		Newark b.....	102	56	76.2	3.85	
Fort Robinson.....	99	41	71.8	2.19		Battle Mountain *1.....	102	60	74.5	0.00		New Brunswick a.....	105	50	77.8	5.42	
Fremont t.....	95	51	74.6	2.56		Beowawe *1.....	100	52	77.2	T.		Newton.....	99	42	73.6	4.39	
Geneva t.....	104	41	74.6	0.35		Blaine.....	91	30	64.0	0.21		Ocean City.....	94	55	73.6	5.28	
Genoa.....	99	52	75.3	1.36		Candelaria.....	99	44	75.8	T.		Oceanic.....	99	58	73.8	6.70	
Gering.....	95	35	.....	1.65		Carlin *1.....	102	50	71.5	0.00		Pateros.....	102	51	75.5	3.70	
Gordon.....			2.26			Carson City.....	99	40	68.0	0.07		Plainfield.....	101	47	74.8	5.42	
Gothenburg.....	106	45	75.8	1.48		Clover Valley.....				0.12		Rancocas.....				4.38	
Grand Island a.....			1.60			Elko *1.....	100	52	69.6	0.00		Rivervale.....	105	42	74.4	4.78	
Grand Island b.....	98	50	73.8	1.39		Elko (near).....	103	34	68.4	T.		Roseland.....	98	43	73.4	4.44	
Greeley.....			0.90			Ely.....	98	36	70.1	0.50		Salem.....	103	50	78.0	5.24	
Haigler.....			1.20			Empire Ranch.....	104	45	79.9	0.01		Somerville.....					

TABLE II.—*Meteorological record of voluntary and other cooperating observers—Continued.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.			Stations.	Temperature. (Fahrenheit.)			Precipita- tion.			Stations.	Temperature. (Fahrenheit.)			Precipita- tion.			
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.	
<i>New Mexico</i> —Cont'd.	°	°	°	Ins.	Ins.	<i>New York</i> —Cont'd.	°	°	°	Ins.	Ins.	<i>North Dakota</i> —Cont'd.	°	°	°	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.
East Lasvegas†	88	49	68.3	4.63	Ins.	Palermo	98	33	73.0	1.60	99	33	67.4	1.46	99	33	67.4	1.46	99	33	67.4
Eddy	100	60	77.8	4.35		Penn Yan	98	38	75.4	2.08	95	40	66.9	1.72	95	40	66.9	1.72	95	40	66.9
Engle†	101	57	76.2	3.65		Perry City	97	32	72.4	1.82	94	38	68.0	2.59	94	38	68.0	2.59	94	38	68.0
Espanola	98	51	73.0	2.32		Phenix	.....	.....	.....	2.67	98	38	70.0	3.96	98	38	70.0	3.96	98	38	70.0
Folsom	92	49	69.6	3.48		Pine City	.....	.....	.....	2.64	101	31	69.6	3.26	101	31	69.6	3.26	101	31	69.6
Fort Bayard	96	50	71.4	6.56		Plattsburg Barracks†	96	49	71.3	2.09	100	28	65.4	3.39	100	28	65.4	3.39	101	31	68.7
Fort Union	93	40	67.2	5.74		Port Jervis	100	42	73.6	4.51	96	31	66.9	2.59	96	31	66.9	2.59	96	31	66.9
Fort Wingate	99	50	72.2	3.83		Poughkeepsie	102	40	73.4	3.20	97	35	68.8	2.27	97	30	66.4	2.53	97	35	68.8
Galisteo	98	46	73.5	3.41		Primrose	103	42	73.4	5.40	98	32	65.3	1.96	98	32	65.3	1.96	98	32	65.3
Gallinas Spring†	100	53	75.2	4.00		Ridgeway	94	42	72.7	1.35	96	38	69.0	3.91	96	38	69.0	3.91	96	38	69.0
Gila	103	59	78.6	3.18		Rome	96	42	71.2	4.18	96	40	68.0	2.19	96	40	68.0	2.19	96	40	68.0
Laluz	94	54	75.0	6.30		Romulus	96	41	74.4	2.42	98	30	68.8	2.34	98	30	68.8	2.34	98	30	68.8
Las Cruces†	102	52	75.8	2.18		Rose	.....	.....	.....	2.07	99	36	69.0	2.25	99	36	69.0	2.25	99	36	69.0
Las Vegas Hot Springs	93	42	67.8	5.90		St. Johnsville	95	40	72.6	5.83	92	37	64.8	2.39	92	37	64.8	2.39	92	37	64.8
Lordsburg ¹	99	64	80.4	2.33		Saranac Lake	91	33	68.1	3.16	98	38	68.3	4.10	98	38	68.3	4.10	98	38	68.3
Lower Penasco	98	52	72.4	7.20		Saratoga Springs	96	43	73.2	2.30	95	40	64.6	2.29	95	40	64.6	2.29	95	40	64.6
Puerto de Luna	102	55	76.6	5.41		Scottsville	.....	.....	.....	1.05	106	35	73.4	0.95	106	35	73.4	0.95	106	35	73.4
Raton	92	44	68.0	4.00		Setauket†	98	52	72.6	7.81	96	37	69.6	2.25	96	37	69.6	2.25	96	37	69.6
Rincon†	102	63	77.6	3.62		Sherwood	.....	.....	.....	2.50	95	33	64.8	2.42	95	33	64.8	2.42	95	33	64.8
Roswell†	100	58	76.3	6.53		Skaneateles	.....	.....	.....	1.91	95	35	67.0	2.50	95	35	67.0	2.50	95	35	67.0
San Marcial	97	55	75.8	1.62		South Canisteo	92	34	70.2	1.75	99	36	69.0	2.25	99	36	69.0	2.25	99	36	69.0
Shattucks Ranch	100	.....	.....	4.00		Southeast Reservoir	.....	.....	.....	3.52	92	32	64.8	2.39	92	32	64.8	2.39	92	32	64.8
White Oaks†	95	47	69.4	5.60		South Kortright†	95	32	69.8	2.56	95	40	66.8	3.25	95	40	66.8	3.25	95	40	66.8
Winsors Ranch	86	37	60.4	5.10		Straits Corners	98	36	71.4	2.40	95	38	69.0	2.55	95	38	69.0	2.55	95	38	69.0
<i>New York.</i>	.....	.....	.....	.....		Ticonderoga	96	42	72.0	2.49	92	45	67.0	2.25	92	45	67.0	2.25	92	45	67.0
Addison	95	38	71.8	2.16		Wappingers Falls	100	48	74.6	3.68	96	36	66.4	1.36	96	36	66.4	1.36	96	36	66.4
Akron	.....	.....	.....	3.15		Warwick	.....	.....	.....	5.30	100	32	65.8	1.33	100	32	65.8	1.33	100	32	65.8
Alden	92	37	72.0	0.80		Watertown	97	35	73.2	1.54	95	37	66.8	3.39	95	37	66.8	3.39	95	37	66.8
Alfred	90	35	70.2	2.55		Watkins ^a	97	39	71.8	2.87	91	38	65.8	3.28	91	38	65.8	3.28	91	38	65.8
Angelica†	91	36	70.4	1.79		Waverly†	98	36	74.4	2.97	94	40	67.8	4.45	94	40	67.8	4.45	94	40	67.8
Appleton	94	41	71.3	1.05		Wedgewood	97	43	73.8	3.48	98	32	65.6	3.46	98	32	65.6	3.46	98	32	65.6
Arcade	89	35	70.2	2.98		Westfield	92	46	72.4	2.68	97	39	65.8	3.23	97	39	65.8	3.23	97	39	65.8
Atlanta	.....	.....	.....	3.88		Westpoint†	103	50	74.2	3.80	98	40	68.4	2.35	98	40	68.4	2.35	98	40	68.4
Auburn	95	43	74.2	1.32		Willettspoint	102	56	73.8	7.85	98	31	65.5	2.31	98	31	65.5	2.31	98	31	65.5
Avon	95	37	73.5	2.09		<i>North Carolina.</i>	.....	.....	.....	.....	94	31	65.4	0.43	94	31	65.4	0.43	94	31	65.4
Baldwinsville	98	43	73.6	1.59		Ashville†	99	50	76.1	8.48	98	33	65.5	1.00	98	33	65.5	1.00	98	33	65.5
Bedford	99	42	71.2	4.88		Beaufort†	92	60	79.6	5.57	95	44	74.9	5.64	95	44	74.9	5.64	95	44	74.9
Big Sandy ¹⁰	92	43	72.8	.....		Biltmore†	94	59	73.8	6.68	92	53	73.5	2.40	92	53	73.5	2.40	92	53	73.5
Bouckville	90	40	70.4	2.63		Bryson City†	96	61	80.3	6.38	98	50	73.5	6.90	98	50	73.5	6.90	98	50	73.5
Boyd's Corners	.....	.....	.....	4.78		Experimental Farm	96 ^a	60 ^a	79.6 ^a	5.59	98	44	74.3	3.17	98	44	74.3	3.17	98	44	74.3
Brentwood	102	42	73.9	7.40		Fairbluff†	.....	.....	.....	6.67	101	42	75.2	1.80	101	42	75.2	1.80	101	42	75.2
Canajoharie	92 ^a	58	74.8	2.69		Fayetteville†	96	58	78.6	5.97	95	46	72.8	2.51	95	46	72.8	2.51	95	46	72.8
Canton	95	34	71.0	1.96		Flatrock	89	51	72.1	13.73	92	50	73.5	2.40	92	50	73.5	2.40	92	50	73.5
Carmel	97	52	74.0	3.80		Goldsboro	100	60	82.2	1.97	98	57	78.8	5.10	98	57	78.8	5.10	98	57	78.8
Carvers Falls	96	39	71.2	1.73		Greensboro†	96	58	77.2	2.71	96	55	77.7	6.68	96	55	77.7	6.68	96	55	77.7
Catskill	95	47	73.6	3.42		Henderson†	96 ^a	58 ^a	78.3 ^a	5.68	97	53	74.1	4.20	97	53	74.1	4.20	97	53	74.1
Cedarhill	98	43	74.2	1.42		Hendersonville	90	53	72.4	11.21	96	52	74.4	3.24	96	52	74.4	3.24	96	52	74.4
Charlotte ¹⁰	92	44	70.2	2.18		Horse Cove	91	51	72.4	17.14	96	52	74.4	4.51	96	52	74.4	4.51	96	52	74.4
Chenango Forks	.....	.....	.....	2.86		Mocksville	97	56	78.8	7.66	95	45	75.8	2.34	95	45	75.8	2.34	95	45	75.8
Cherry Creek	.....	.....	.....	2.86		Moncure†	97	61	79.4	3.81	104	55	73.8	1.86	104	55	73.8	1.86	104	55	73.8
Cooperstown†	92	40	70.4	3.02		Moorcroft	98	57	78.8	5.10	98	44	74.9	5.64	98	44	74.9	5.64	98	44	74.9
Cortland	94	36	69.4	3.14		Pittsboro†	96	60	78.4	6.25	97	46	72.8	4.28	97	46	72.8	4.28	97	46	72.8
Dekalb Junction	.....	.....	.....	2.80		Rockingham†	101	60	80.7	9.47	102	39	74.3	4.75	102	39	74.3	4.75	102	39	74.3
Dryden	95	34	71.4	5.58		Roxborot†	96	53	76.1	5.49	102	45	75.4	4.57	102	45	75.4	4.57	102	45	75.4
Elizabethtown	96	32	68.4	2.91		Salem†	100	57	78.1	5.89	97	47	74.2	3.92	97	47	74.2	3.92	97	47	74.2
Elmira	99	42	75.2	2.24		Salisbury†	100	56	79.0	3.96	97	48	75.5	3.92	97	48	75.5	3.92	97	48	75.5
Fayetteville	.....	.....	.....	1.50		Saxon†	98	56	76.4	5.44	97	48	75.5	3.92	97	48	75.5	3.92	97	48	75.5
Fleming	95	45	74.6	1.97	</td																

TABLE II.—*Meteorological record of voluntary and other cooperating observers—Continued.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>Ohio—Cont'd.</i>																	
Killbuck	97	44	75.0	6.56	In.	Oregon.	o	o	o	In.	In.	Pennsylvania—Cont'd.	o	o	o	Ins.	Ins.
Lancaster	96	44	77.4	2.68		Albany a	96	44	67.6	0.40		Forks of Neshaminy *1.	98	60	77.8	4.42	
Leipsic	100	43	74.0	9.05		Albany b	104	50	74.4	0.42		Franklin	95	39	73.6	2.18	
Levering	98	39	74.2	3.04		Arlington	104	41	68.8	0.22		Frederick	.....	.....	2.87		
Logan	101	49	81.2	5.42		Ashland b	104	55	69.0	0.05		Freeport t	.....	.....	3.25		
Lordstown	94	43	73.1	4.70		Aurora * 1	97	43	64.5	0.94		Girardville	4.84		
McArthur	98	40	76.2	3.46		Aurora(near)	95	41	65.6	0.11		Grampian	94	40	72.9	3.41	
McConnelsville t	97	43	76.8	2.78		Bandon	68	41	57.6	0.11		Greensboro t	102	41	76.8	3.95	
Mansfield t	94	49	77.2	1.72		Bay City t	81	43	59.1	1.55		Hamburg	107	49	78.8	5.26	
Marietta b	94	49	77.3	5.20		Beulah	103	30	67.6	0.12		Hawley	100	42	74.0	5.48	
Marion	98	44	76.3	2.21		Burns	100	34	65.4	0.00		Hews Island Dam	.....	.....	1.71		
Medina	96	46	75.2	3.85		Burns (near)	98	34	67.2	0.00		Hollidaysburg	102	39	75.8	2.36	
Mifflordton	96	39	74.8	3.00		Cascade Locks	94	48	67.4	1.65		Huntingdon b	104	39	75.2	2.03	
Milligan	103	38	76.6	4.22		Comstock *1	99	49	64.2	0.43		Irwin	.....	.....	4.41		
Millport	93	39	73.8	5.29		Coquille River	99	39	64.6	0.23		Johnstown t	100	42	75.4	3.89	
Montpelier	98	44	73.5	5.46		Corvallis	98	42	68.4	0.05		Karthaus	.....	.....	0.92		
Napoleon	99	41	74.2	4.09		Ella	.....	.....	.....	.....		Keating	.....	.....	3.95		
Neapolis	.....	.....	3.78	.....		Fairview	90	42	60.0	0.52		Kennett Square	99	47	76.5	3.86	
New Alexandria	98	47	75.2	4.41		Falls City	96	42	64.0	0.34		Lansdale	.....	.....	2.86		
New Berlin	97	43	75.0	4.84		Gardiner	81	42	65.5	0.26		Lawrenceville	97	.....	4.38		
New Bremen	98	47	75.7	3.33		Glenora	99	44	65.8	1.80		Lebanon	104	46	77.7	3.68	
New Holland	102	44	78.0	5.20		Government Camp	90	31	55.9	1.82		Leroy	95	44	72.2	3.06	
New Moscow	.....	.....	6.88	.....		Grants Pass a t	105	39	69.8	0.00		Lewisburg	100	43	75.2	4.21	
New Paris	94	49	75.4	3.00		Happy Valley	96	31	64.2	0.04		Lock Haven a t	102	44	76.6	3.51	
New Waterford	95	40	73.6	3.70		Hood River (near)	96	48	68.2	0.80		Lock Haven b	.....	.....	3.76		
North Lewisburg	99	44	76.2	2.95		Jacksonville	100	45	69.7	0.03		Lock No 4 t	.....	.....	2.87		
North Royalton	98	48	75.4	3.39		Joseph	93	35	63.0	0.67		Lycippus	97	45	75.4	3.88	
Norwalk	100	46	74.6	4.77		Junction City * 1	102	50	68.3	0.38		Mifflin	3.45		
Oberlin	97	46	74.5	4.71		Klamath Falls	100	37	70.5	0.00		Oil City t	.....	.....	4.45		
Ohio State University	99	44	76.8	3.08		Lafayette * 1	102	50	67.8	0.67		Ottsville	2.15		
Orangeville	96	41	73.2	2.53		Lagrange	96	42	69.4	1.29		Parker t	.....	.....	2.13		
Ottawa	97	49	75.8	3.85		Lakeview t	99	40	68.7	0.08		Philadelphia b	101	55	78.1	3.80	
Pataskala t	102	40	77.1	3.03		Langlois	85	44	62.0	0.23		Point Pleasant	.....	.....	6.29		
Perry	.....	.....	2.83	.....		Lone Rock	97	38	63.8	0.15		Pottstown	103	52	78.6	2.13	
Philo	100	43	77.2	5.60		McMinnville	100	41	65.8	0.70		Quakertown	105	45	76.6	3.45	
Plattsburg	95	44	76.2	1.37		Merlin * 1	108	50	71.6	0.00		Reading	78.2	1.80	
Point Marblehead *10	100	58	77.3		Monmouth a * 1	102	58	68.1	0.52		Reedsdale	100	39	73.4	1.13	
Pomeroy *	99	48	78.2	4.41		Monroe	98	43	65.8	0.29		Renovo a	.....	.....	4.39		
Portsmouth a t	.....	.....	5.27	.....		Mount Angel t	100	45	66.8	0.42		Renovo b	97	42	73.9	4.43	
Portsmouth b	101	53	78.4	2.57		Nehalem	.....	.....	.....	.....		Ridgway t	.....	.....	1.87		
Richwood	98	46	77.4	2.17		Newberg	102	42	66.1	0.99		Saegerstown	96	36	70.8	3.62	
Ridgeville Corners	97	42	73.8	3.44		Newbridge	103	39	69.4	0.30		St. Marys	91	38	71.0	3.42	
Ripley	96	52	77.2	8.70		Newport	67	39	56.1	0.84		Salem Corners	93	42	71.8	3.30	
Rittman	95	45	73.4	2.64		Pendleton	106	40	71.5	0.21		Scranton	98	43	75.0	2.69	
Rockyridge	97	47	74.5	2.85		Placer	.....	.....	.....	.....		Seisholtzville	.....	.....	2.84		
Rosewood	97	52	75.6	1.72		Prineville	119	29	63.5	0.11		Selinsgrove	100	43	75.8	5.63	
Seaman	104	43	79.4	5.27		Riddles * 1	103	40	67.0	0.00		Shawmont	5.00		
Sidney b	100	47	78.7	1.90		Riverside	106	31	69.7	0.11		Shinglehouse	94	33	68.9	2.06	
Sinking Spring t	96	47	77.0	7.00		Salem b t	96	45	65.4	0.40		Sinnamahoning	.....	.....	5.46		
Somerset t	97	62	80.6	3.44		Sheridan * 1	97	50	65.7	0.40		Smithethport	94	35	70.2	2.30	
Springboro	.....	.....	3.05	.....		Silver Lake	99	30	62.7	0.20		Smiths Corners	.....	.....	4.27		
Strongsville	4.25		Silverton * 1	100	60	70.4	0.45		Somerset	96	37	70.8	4.72	
Sylvania	97	42	73.7	7.34		Siskiyou * 1	100	52	74.3	0.00		South Eaton	96	42	73.9	1.64	
Thurman	98	50	77.0	4.92		Sparta	96	39	68.4	0.51		State College	95	44	73.2	2.95	
Tiffin t	96	49	75.4	2.06		Springfield * 1	96	53	66.7	0.30		Sunbury	0.52		
Upper Sandusky	98	46	76.1	4.11		Stafford	98	44	66.4	1.12		Swarthmore	99	54	78.5	4.95	
Urbana	98	48	74.3	2.52		The Dalles t	103	49	71.9	0.17		Swiftwater	92	47	78.2	3.30	
Vanceburg	95	49	76.7	10.65		Tillamook Rock	96	49	71.9	0.71		Towanda	97	38	73.2	3.15	
Vermillion	94	50	72.9	3.21		Toledo	89	43	63.0	0.70		Trot Run	.....	.....	1.38		
Vickery	98	47	74.6	6.75		Umatilla	.....	.....	.....	.....		Uniontown	98	45	75.4	6.06	
Walnut	.....	.....	4.00	.....		Vale	102	40	69.8	0.45		Warren t	93	41	71.7	2.90	
Warren	97	45	77.1	3.37		Vernonia	102	34	63.7	0.67		Wellsboro t	96	35	72.8	2.04	
Warsaw	105	40	77.0	5.77		West Fork * 1	108	52	69.7	0.00		West Chester	99	53	77.0	5.43	
Wauseon	101	42	74.7	4.91		Williams	100	40	66.6	0.00		West Newton t	.....	.....	3.21		
Waverly	102	46	78.8	5.48		Pennsylvania.	.....	.....	.....	.....		White Haven	98	39	72.6	3.35	
Waynesville	101	47	76.7	1.30		Altoona	97	40	74.7	1.91		Wilkesbarre t	100	47	75.6	1.15	
Wellington	98	46	75.8	8.30		Aqueduct	106	48	79.8	3.09		Williamsport	97	47	75.0	1.15	
Westerville	96	45	75.6	4.52		Athens	101	36	73.9	2.49		York t	104	44	77.4	3.47	
Willoughby	.....	.....	2.30	.....		Beaver Dam	.....	.....	.....	.....		Rhode Island.	.....	.....	.....	.....
Wooster b t	96	45	74.5	6.79		Bethlehem	.....	.....	.....	.....		Bristol	87	54	70.9	5.39	
Youngstown	98	40	75.4	6.04		Brookville t	.....	.....	.....	.....		Kingston	95	50	70.0	7.11	
Zanesville t	.....	.....	2.28	.....		Browers Lock	.....	.....	.....	.....		Lonsdale	.....	.....	9.55		
Oklahoma.	.....	.....	.....	.....		Cameron	.....	.....	.....	.....		Pawtucket	99	52	74.3	9.29	
Anadarko t	103	55	81.9	2.48		Carlisle	104	42	78.2	3.68		Providence a	102	56	75.4	10.26	
Arapaho t	101	56	79.4	9.82		Cassandra	93	41	72.0	3.73		Providence c	99	50	72.1	10.80	
Beaver	109	.....	3.67	.....		Cedarrun	.....	.....	.....	.....		South Carolina.	.....	.....	.....	.....
Burnett t	96	51	78.6	5.22		Centerhall t	94	43	72.5	2.86		Allendale	99	56	79.4	9.40	
Clifton t	98	54	79														

TABLE II.—*Meteorological record of voluntary and other cooperating observers—Continued.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.	
<i>South Carolina—Cont'd.</i>																		
Holland	99	58	77.6	7.56		Inns.	101	60	82.0	5.49		Tennessee—Cont'd.	104	55	77.4	4.44		
Kingtree ^a †	101	54	79.3	6.46			Elizabethton	104	55	75.9	6.10		Hulen	103	50	79.0	4.02	
Kingtree ^b †							Elk Valley	96	53	75.9	6.10		Huntsville	99	64	81.6	3.26	
Little Mountain	101	54	79.3	6.46			Erasmus	95	51	73.5	4.72		Jacksonville	101	58	80.6	1.55	
Longshore [†]	99 ^b	56	78.1 ^c	9.92			Florence	97	59	78.2	3.66		Jasper	100	67	81.7	2.73	
Mount Carmel [†]							Franklin	95	58	77.8	6.19		Junction				5.91	
Pinopolis [†]	94	64	78.9	6.13			Grace	100	58	79.0	9.10		Kent				2.44	
Port Royal [†]	99	63	82.0	9.30			Greeneville	96	56	75.2	2.80		Kerrville	100	55	78.5	2.35	
St. Georges [†]	98	61	80.7	6.97			Harriman	95	59	78.4	6.59		Lampasas	104	57	81.5	2.32	
St. Matthews [†]	99	60	80.4	7.46			Hohenwald [†]	98	54	78.2	6.08		Langtry	100			3.87	
St. Stephens [†]							Jackson	94	56	78.4	3.88		Llano ^a † ^b	103	64	83.8	1.45	
Santuck [†]	96	59	78.8	8.54			Johnsonville	97	54	78.8	2.29		Longview	104	63	84.0	1.17	
Shaws Fork	97 ^d	57 ^d	79.0 ^d	5.57			Jonesboro	93	59	73.8	6.32		Luling	102	66	84.0	2.43	
Smiths Mills [†]							Kingston						Mann	106	62	81.8	5.00	
Spartanburg	98	57	79.7	6.90			Lafayette	94	56	76.9	5.16		Marshall	95	64	81.0	0.70	
Society Hill [†]	95	61	80.4	9.27			Lewisburg	99	60	78.6	7.00		Menardville	105	54	79.3	1.99	
Statesburg [†]	98	59	80.5	6.73			McKenzie	94	57	78.5	4.71		Mount Blanco	98	58	78.0	2.18	
Summerville							McMinnville	99	53	77.6	6.60		New Braunfels	106	64	83.6	3.02	
Trenton	95	58	80.2	11.37			McPhee						Panter				1.94	
Trial	96	59	77.7	9.60			Maryville	98	58	79.4	4.58		Paris	103	61	81.6	1.23	
Walhalla	96	57	76.2	9.00			Milam	98	59	80.4	8.30		Point Isabel	92	80	84.1	0.35	
Winnisboro	94 ^e	55	78.7	6.83			Nashville (near)	94	61	78.5	4.61		Rheinland	105	61	83.8	4.77	
Yemassee [†]	101	61	82.0	6.80			Newport	99	58	77.8	5.43		Roby	101 ^f	56	80.3 ^f	1.32	
Yorkville	98	59	79.7	6.18			Nunnelly	95	55	77.1	6.14		Rockport	88	70	81.7	0.45	
<i>South Dakota</i>							Oak Hill	96	56	76.4	7.08		Rocksprings					
Aberdeen [†]	99	45	71.4	3.65			Palmetto	101	57	79.6	7.11		Runge	101	61	84.2	0.66	
Alexandria [†]	100	45	71.6	2.74			Perryear	96	58	78.3	5.77		San Antonio	105	67	84.8	1.90	
Armour	99	47	72.6	4.57			Pope	97	58	78.4	5.84		San Marcos	103	61	82.2	1.09	
Ashcroft [†]	100	39	70.1	1.31			Rozerville	92	57	74.7	5.70		Sherman	101	63	82.8	0.90	
Bowdle	103	38	71.6	2.20			Rugby	95	54	75.4	5.73		Sugarland				1.32	
Brookings [†]	94	42	70.4	1.56			Savannah	101	59	80.2	5.46		Temple ^a	101	66	82.3	0.73	
Canton	92	49	71.2	3.84			Sewanee	93	55	74.8	10.56		Temple ^b	109	66	82.7	0.38	
Centerville							Silverlake	90	62	70.8	4.73		Tulia	98	54	76.8	4.67	
Chamberlain [†]	100	50	74.2	4.64			Springdale	99	51	77.5	5.44		Tyler	101			4.01	
Chandler							Springfield	98	55	79.2	6.35		Valentine	107	47	77.3	0.45	
Clark							Tylerton	98	54	77.0	7.15		Victoria				4.88	
Desmet	93	42	69.6	2.08			Tzelwell						Waco	106	64	85.8	1.35	
Doland	98 ^e	44	72.3 ^e	2.72			Tellico Plains	99	55	78.3	5.88		Waxahachie	105	60	82.2	1.25	
Farmingdale							Tracy City	93	55	74.5	8.10		Weatherford	103	61	81.7	0.99	
Flandreau	97	45	70.8	1.45			Trenton	94	57	76.8	4.67		Wichita Falls				1.96	
Forestburg [†]	94	46	71.2	5.49			Tullahoma	97	55	77.0	7.60		Utah					
Forest City	102	47	75.5	0.65			Union City	96	57	78.2	6.15		Alpine				0.19	
Fort Meade [†]	99	50	72.8	1.20			Wildersville	93	59	78.0	5.15		Blue Creek	100	50	76.5	0.10	
Gann Valley	95	46	71.9	5.05			Yukon	97	60	78.0	8.08		Brigham					
Gary	96	50	70.7	3.39								Cisco	106	54	82.8	0.03		
Goudyville	101	41	70.6	1.22								Ferrell	100	46	76.2	0.7		
Harney	96	37	67.7	2.92								Fillmore	107	32	74.5	0.99		
Hightmore	102	52	75.2	2.33								Fort Duchesne	99	41	72.2	0.66		
Hitchcock												Frisco	102	47	76.2	0.97		
Hotch City [†]	104	42	73.3	4.98								Giles	110	49	81.8	0.36		
Hot Springs	97	43	71.2	1.11								Heber	98	34	67.8	0.25		
Howard [†]	96	43	72.0	2.45								Huntsville				0.48		
Interior	106	42	78.0	4.00								Kelton	101	65	81.4	0.00		
Ipswich	100	42	71.2	0.86								Levan	95	38	70.8	1.62		
Kimball [†]	99	46	71.8	4.89								Loa	96	30	65.7	0.60		
Leslie [†]	112	42	78.7	1.69								Millville				0.10		
Mellette [†]	103	45	74.1	1.24								Minersville				0.10		
Mennio [†]	100	47	73.7	3.86								Moab				0.51		
Millbank	92	45	69.2	2.73								Mount Pleasant	108	39	76.8	0.30		
Mitchell [†]	96	46	70.4	4.02								Ogden ^a †	99	48	78.6	0.00		
Montrouse	94	48	70.0	2.46								Pahreah	106	54	77.6	0.01		
Nowlin	105	35	74.8	0.19								Parowan	96	43	71.5	1.19		
Oelrichs [†]	107	38	73.8	2.20								Pinto	100	36	69.1	0.07		
Parker [†]												Promontory	100	56	73.8	0.7		
Parkston	98	43	69.8	4.63								Provo	105	39	73.6	0.35		
Plankinton [†]	98	42	72.3	4.36								Richfield	102			0.40		
Redfield	100	46	70.9	2.75								St. George	115	54	84.5	0.05		
Rochford												Scipio	98	34	71.4	0.19		
Rosebud	105	38	73.5	2.77								Snowville	96	37	0.8	0.06		
Silver City												Soldier Summit	95	28	62.7	0.7		
Sioux Fallst.	98	46	71.8	3.08								Terrace	96	51	73.1	0.7		
Spearfish [†]	94	44	70.0	1.90								Thistle	99	40	70.6	0.28		
Tyndall [†]	96	49	73.3	4.31								Tooele	94	46	72.3	0.14		
Watertown	93	40	67.6	4.54								Tropic	96	41	69.2	0.58		
Wentworth [†]	98	48	71.4	2.10								Vernal	94	44	72.8	0.34		
Wessington Springs	92	49	68.6	6.92								Woodruff	94	31	63.3	0.17		
Whiteswan	98	52	74.4	5.39								Vermont						
Wolsey												Bennington	95	42	72.5	1.35		
<i>Tennessee.</i>												Burlington	89	49	71.5	1.51		
Andersonville	98	57	78.4	5.07								Chesterfield	90	38	67.8	2.28		
Arlington	98	58	79.8	4.01								Cornwall	98	42	71.6	1.45		
Ashwood	99	57	78.6	5.65								Hartland	93	36	67.8	1.89		
Benton (near) [†]	98																	

TABLE II.—*Meteorological record of voluntary and other cooperating observers—Continued.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	Stations	Temperature. (Fahrenheit.)			Precipita- tion.	Stations.	Temperature. (Fahrenheit.)			Precipita- tion.			
	Maximum.	Minimum.	Mean.	Rain and melted snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		
Virginia—Cont'd.	o	o	o	Ins.	Ins.	West Virginia—Cont'd.	o	o	o	Ins.	Ins.	Wyoming—Cont'd.	o	o	o	Ins.	Ins.
Buckingham †	99	51	76.6	5.00		Kingwood	91	41	72.4	2.74		Otto	95	40	67.8	1.48	
Burke's Garden	91	45	69.8	5.31		Marlinton †	91	42	71.2	6.76		Sheridan	97	37	67.3	0.44	
Callaville †	95	56	77.2	4.00		Martinsburg †	103	52	76.8	3.20		Sundance	95	41	68.8	1.71	
Charlottesville	95	55	75.8	7.89		Morgantown b†	98	48	75.2	4.01		Wamsutter	100	32	66.6	T.	
Christiansburg						New Cumberland	95	47	77.6	6.40		Wheatland	109	44	72.8	2.34	
Clarksville						New Martinsville	101	40	77.8	6.33		Mexico.					
Clifton Forge	99	48	76.5	3.69		Nuttallburg	95	43	72.8	6.80		Ciudad P. Diaz	97	72	85.9	1.11	
Dale Enterprise †	100	44	73.2	6.34		Oldfields †	100	41	74.1	3.25		Leon de Aldamas	84	55	68.1	9.24	
Danville						Philipps	100 ^d	43 ^d	75.8 ^d	3.91		Puebla	79	47	62.1	5.00	
Doswell	104	54	78.7	5.23		Point Pleasant †	100	50	78.8	2.79		Topolobampo *†	95	77	85.0	1.98	
Farmville	103	56	78.8	6.03		Powellton	93	48	74.4	7.58		New Brunswick					
Fredericksburg †	103	58	79.2	3.10		Romney	102	45	75.8	2.66		St. John	75	51	61.4	1.03	
Hampton	95	65	79.4	4.15		Rowlesburg †											
Hot Springs	94	44	70.2	5.10		Upper Tract	102	40	74.9	4.23							
Lexington †	95 ^f	53 ^f	74.4 ^f	4.44		Weston a											
Maldens						Weston b *†	102	47	77.0	3.81							
Manassas	101	52	78.4	3.06		Wheeling a†	103	48	74.6	5.81							
Marion	97 ^e	51 ^e	74.3 ^e	6.03		Wheeling b†											
Petersburg †	98	56	78.8	4.74		Wisconsin.											
Richmond (near) †	105	56	79.4	3.50		Amherst	93	39	70.0	2.61							
Rockymount †	98	58	77.0	7.75		Barron	90	38	66.2	1.90							
Salem †	94	58	78.2	5.06		Bayfield	96	44	70.6	0.55							
Speer Ferry						Beloit	92	50	73.0	4.79							
Spottsville	98	62	79.4	7.80		Brodhead	94	48	72.1	4.22							
Stanardsville	100	52	75.2	5.22		Chat											
Stephens City †	103	50	77.4	2.27		Citypoint	97	46	73.0	3.80							
Sunbeam †	96	60	78.6	6.10		Delavan	93	42	71.2	2.59							
Warrenton	101	60	79.3	2.54		Dodgeville †	92	47	71.2	2.70							
Warsaw †	102	60	79.2	5.80		Easton	94	41	71.3	4.39							
Westpoint	96	51	76.2	4.52		Eau Claire	95	48	73.2	1.27							
Woodstock †	105					Florence †	90	36	66.2	3.71							
Wytheville	96	48	73.6	5.63		Fond du Lac	95	43	71.6	3.23							
Washington.						Grand River Locks											
Aberdeen	93	41	60.0	0.97		Grantsburg †	95	41	70.2	1.59							
Ashford †	89			1.35		Hartford	91	42	67.6	2.31							
Blaine †	89	34	59.0	0.90		Hartland	98	39	72.7	2.83							
Bridgeport	104	35	73.9	0.00		Harvey	93	47	72.6	3.97							
Brinnon	86	48	64.0	0.48		Hayward	97	39	70.8	1.44							
Cedar Lake						Heatford Junction *†	93	50	69.3	2.76							
Centerville †	107	38	67.2	0.14		Hillsboro	94	39	70.2	3.35							
Clearwater	91	43	61.5	1.97		Knapp	92	43	69.8	2.11							
Colfax	92	36	65.0	0.39		Koepenick *††	92	54	68.4	2.60							
Coupeville †	94	43	63.2	0.61		Lancaster †	96	47	73.3	4.90							
Ellensburg	95	41	68.2	0.05		Lincoln	92	45	70.2	3.08							
Ellensburg (near)	104	42	71.0	0.10		Madison †	90	54	73.1	2.83							
Fort Simcoe †	101	41	69.8	0.00		Manitowoc †	92	44	66.6	2.63							
Fort Spokane	104	39	69.8	2.00		Meadow Valley †	95	39	70.4	4.31							
Grandmound †	97	41	64.0	0.47		Medford †	101	35	70.6	2.25							
Hunters †	89	33	59.8	1.17		Menasha	94	34	70.0	3.13							
Kennewick †	105	45	76.4	0.00		Neillsville	94	34	70.0	2.84							
Lacenter	99	46	65.4	0.96		New Holstein	95	41	68.9	1.85							
Lakeside	97	51	73.7	T.		New London	92	44	70.1	4.73							
Lapush	65	44	54.4	1.30		North Crandon	95										
Loomis †	99	46	70.4	0.76		Oconto	93	41	66.4	2.81							
Madrone †	90	42	62.2	0.39		Osceola †	95	41	69.8	1.32							
Moxee Valley †	100	44	72.0	0.02		Pepin	94	42	72.0	2.15							
New Whatcom	83	43	60.4	0.91		Pine River †											
Northbend	90	40	64.0	0.80		Portage †	95	44	70.8	3.12							
Olga	80	42	57.8	0.46		Port Washington	92	46	69.0	2.25							
Olympia †	96	43	64.2	0.28		Prairie du Chien	97	49	74.8	3.25							
Orcas Island	88	43	62.8	0.16		Prentice *†	96	49	66.4	2.20							
Pinehill †	103	44	69.1	0.25		Racine	94	50	71.3	3.24							
Pomeroy	100	52	75.0	0.05		Sharon	93 ^a										
Port Townsend	86	49	60.4	0.72		Shawano	92	43	69.4	3.00							
Pullman †	95	38	65.6	0.51		Sheboygan * ¹⁰	85	51	70.5								
Rossala †	94	37	64.6	0.48		Spooner	99	37	71.4	0.69							
Sedrot	92	40	63.6	1.08		Stevens Point †	94	41	71.2	1.45							
Shoalwater Bay * ¹⁰	80	51	60.1			Sturgeon Bay Canal * ¹⁰	80	45	64.5								
Snohomish †	92	55	69.8	T.		Two Rivers * ¹⁰	83	50	68.4								
Southbend	95	42	61.6	0.92		Valley Junction †	93	37	69.0	3.27							
Stillagumash	91	38	59.4	0.05		Viroqua	95	46	72.0	3.19							
Sunnyside †	101	45	72.4	0.00		Watertown †	92	45	71.4	3.08							
Union City †	98	42	63.2	0.48		Waukesha †	94	53	73.0	2.81							
Vancouver	93	46	65.1	0.85		Waupaca †	96	42	72.0	3.10							
Vashon†	88	47	62.8	0.37		Wausau †	93	44	70.2	4.04							
Waterville	97	38	66.0	0.06		Whitefishfield †	92	46	72.0	3.66							
West Virginia.						Westpark	94	46	71.2	2.60							
Beckley	90	46	71.2	3.14		Whitehall	94	40	72.1	3.40							
Beverly †	98	40	71.8	8.33		White Mound	96	39	71.0	3.10							
Bluefield	94	51	72.8	6.42		Wyoming.											
Buckhannon a†						Basin	101	44	73.4	0.10							
Burlington †	97	42	74.6			Big Horn Ranch	84	30	59.3	1.57							
Charleston †	102	40	75.2	1.92		Big Piney	83	33	59.2	0.97							
Dayton †	99	40	75.2	4.47		Bitter Creek	105	34	72.5	0.01							
Eastbank	98	52	75.4	4.60		Carbon	102	38	71.8	0.18							
Elkhorn†	94	51	73.1	7.33		Cody											
Fairmont †						Embar	94	40	69.0	0.44							
Glenville†	94	45	72.9	4.41		Evanson	90	32	63.2	0.28							
Grafton †	96	43	73.7	4.36		Fort Laramie†	102	40	72.4	1.61							
Green Sulphur	95	49	74.7	1.62		Fort Washakie	91	38	66.0	0.35							
Harpers Ferry						Fort Yellowstone†	87	32	62.1	1.15							
Hinton a†						Green River	100	36	67.7								
Hinton b†	97	51	76.4			Laramie	88	38	64.9	0.65							
Huntington	99	50	77.6	4.41		Lovell	100	36	68.0	0.86							
						Lusk †	99	40	70.4	0.67							

EXPLANATION OF SIGNS

EXPLANATION OF SIGNS.
Extremes of temperature from observed readings of
thermometer.

Weather Bureau Instruments.

A numeral following the name of a station indicates the hours of observation from which the mean temperature was obtained, thus:

Mean of 7 a. m. + 2 p. m. + 9 p. m. + 9 p. m. ÷ 4.

Mean of 8 a. m. + 8 p. m. ÷ 2.

$$\text{Mean of } 7 \text{ a. m.} + 7 \text{ p. m.} \div 2.$$

Mean of 6 a. m. + 6 p. m. \div 2.
Mean of 7 a. m. + 2 p. m. \div 2.

Mean of readings at various hours reduced to 1.

Mean of readings at various hours reduced to
mean by special tables.

Mean from hourly readings of thermograph.
Mean of 5.8°C . $m^{-1} \text{ s}^{-1}$, $0.9 \mu\text{m}^{-1} \text{ s}^{-1}$.

Mean of 7 a. m. + 2 p. m. + 9 p. m. ÷ 3.
Mean of sunrise and noon

Mean of sunrise and noon.
Mean of sunrise, noon, sunset, and midnight.

The absence of a numeral indicates that the mean of sunrise, noon, sunset, and midnight.

The absence of a humeral indicates that the mean temperature has been obtained from daily readings.

maximum and minimum thermometers.

An italic letter following the name of a station, "Livingston *a*" "Livingston *b*" indicates that two

"Livingston *a*," "Livingston *b*," indicates that two
are observers, as the case may be, are reporting f-

re observers, as the case may be, are reporting from the same station. A small roman letter following

same station. A small Roman letter following one of a station, or in figure columns, indicates

number of days missing from the record; for instance, all denotes 14 days missing.

" denotes 14 days missing.
CORRECTIONS

CORRECTIONS.

Nebraska, Monroe, May, 1898, make precipitation

Nebraska, Monroe, May, 1898, make precipitation 5.39 instead of 5.09.

oakdale, May 1898, make maximum and mean t

ture read 88 and 57.2, respectively, instead of 155.4.

157.4.

TABLE III.—Data furnished by the Canadian Meteorological Service, July, 1898.

Stations.	Pressure.			Temperature.			Precipitation.			Stations.	Pressure.			Temperature.			Precipitation.		
	Mean not reduced.	Mean reduced.	Departure from normal.	Mean.	Departure from normal.	Mean.	Mean max.	Mean min.	Total.		Mean not reduced.	Mean reduced.	Departure from normal.	Mean.	Mean max.	Mean min.	Total.	Departure from normal.	Depth of snow.
	In.	In.	In.	In.	In.	In.	Mean max.	Mean min.	Depth of snow.		In.	In.	In.	In.	In.	In.	In.	In.	Depth of snow.
St. Johns, N. F.....	29.87	30.01	+0.4	59.0	+0.3	59.0	2.60	2.60	...	Saugeen, Ont.....	29.34	30.03	+1.0	67.4	71.4	57.3	0.16	-1.87	...
Sydney, C. B. I.....	30.00	30.04	+1.3	62.3	+1.8	62.3	3.65	-0.60	...	Parry Sound, Ont.....	29.33	30.00	+0.8	68.4	70.5	57.3	0.23	-2.20	...
Halifax, N. S.....	29.94	30.07	+1.5	65.2	+1.8	65.2	1.94	-2.80	...	Port Arthur, Ont.....	29.26	29.94	+0.6	60.4	61.6	51.3	4.58	+1.57	...
Grand Manan, N. B.....	29.97	30.02	+0.7	62.3	+0.6	62.3	3.35	-0.62	...	Winnipeg, Man.....	29.08	29.88	-0.1	65.1	63.3	54.0	1.77	-1.45	...
Yarmouth, N. S.....	29.98	30.06	+1.3	60.8	+1.3	60.8	6.63	-3.56	...	Minnedosa, Man.....	28.14	29.89	+0.5	63.5	74.5	52.5	4.78	+2.34	...
Charlottet'N, P. E. I.....	29.97	30.01	+0.9	65.3	+1.2	65.3	3.35	-0.62	...	Qu'Appelle, Assin.....	27.66	29.94	-0.2	64.1	66.6	51.3	2.25	-0.20	...
Chatham, N. B.....	29.95	29.97	+0.6	67.8	+2.8	67.8	50.6	3.96	-0.74	Medicine Hat, Assin.....	27.62	29.82	-0.2	69.3	71.5	54.0	2.45	+0.73	...
Father Point, Que.....	29.92	29.96	+1.2	58.1	+0.5	58.1	4.73	-2.35	-0.87	Swift Current, Assin.....	27.38	29.86	-0.4	66.3	70.2	51.9	2.81	+0.69	...
Quebec, Que.....	29.66	29.98	+1.1	67.5	+2.0	67.5	57.1	4.43	-0.53	Calgary, Alberta.....	27.34	29.82	-0.2	60.7	64.3	55.5	2.55	...	...
Montreal, Que.....	29.80	30.00	+1.2	70.4	+1.9	70.3	61.5	2.11	-2.46	Banff, Alberta.....	25.38	29.92	-0.2	56.2	61.4	40.9	4.54	...	...
Rockcliffe, Ont.....	29.43	29.98	+0.9	68.1	+3.5	68.1	54.3	1.50	-1.62	Edmonton, Alberta.....	27.59	29.82	-0.7	62.9	72.3	49.6	2.00	-1.10	...
Ottawa, Ont.....	29.69	30.04	+1.6	70.6	+1.1	70.6	58.2	2.87	...	Prince Albert, Sask.....	28.30	29.76	-0.2	63.3	71.4	50.6	1.95	...	...
Kingston, Ont.....	29.70	30.01	+1.1	70.3	+2.1	70.3	62.3	0.16	-3.10	Battleford, Sask.....	28.16	29.94	-0.5	65.2	78.3	52.0	1.09	...	...
Toronto, Ont.....	29.65	30.02	+0.8	71.5	+3.5	71.5	61.1	0.69	-2.28	Kamloops, B. C.....	28.64	29.87	-0.7	70.0	83.2	56.8	0.88	...	...
White River, Ont.....	28.67	29.99	+0.4	61.0	+1.5	61.0	48.4	3.77	+0.46	Esquimalt, B. C.....	20.01	30.04	-0.3	60.3	70.0	50.7	0.28	...	...
Port Stanley, Ont.....	29.41	30.03	+1.6	70.2	+2.4	70.2	59.7	2.41	-1.14	Hamilton, Bermuda.....	30.01	30.17	+0.8	79.3	73.6	2.90	...	...	...

TABLE IV.—Mean temperature for each hour of seventy-fifth meridian time, July, 1898.

Stations.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Midnight.	Mean.
	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Midnight.	Mean.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.									
Bismarck, N. Dak.....	65.3	63.9	62.3	61.0	60.1	58.8	58.5	61.1	64.7	68.2	70.8	73.3	75.5	76.4	76.3	75.2	75.0	74.7	73.1	71.5	70.8	69.8	68.5	71.3	
Boston, Mass.....	67.7	67.1	66.6	65.9	65.3	66.1	68.0	70.3	72.5	73.9	75.3	76.1	76.4	76.3	75.2	75.0	74.7	73.1	71.5	70.8	70.0	69.8	68.5	70.0	
Buffalo, N. Y.....	69.6	68.9	68.0	67.5	67.1	67.6	69.8	71.8	73.6	74.8	75.6	77.2	78.0	77.9	77.8	77.7	77.0	76.7	75.7	74.6	73.2	72.4	71.0	73.0	
Chicago, Ill.....	72.0	71.2	70.8	70.2	69.4	68.8	69.8	71.3	73.6	74.6	74.9	75.3	75.8	76.2	76.3	75.0	75.5	75.2	74.5	73.5	72.2	71.2	70.7	73.5	
Cincinnati, Ohio.....	74.9	74.2	73.0	72.1	71.2	70.4	70.2	73.1	75.1	77.8	80.2	82.3	84.0	84.6	84.4	85.2	85.3	85.0	84.3	81.8	80.3	78.9	77.2	75.9	
Cleveland, Ohio.....	70.7	70.3	69.5	68.7	68.0	68.2	69.3	71.3	73.9	75.6	75.5	75.5	75.6	76.2	75.9	75.5	75.2	74.3	73.0	72.0	71.8	70.9	73.0		
Detroit, Mich.....	78.7	77.7	76.7	75.5	74.5	73.5	72.9	72.4	72.0	74.5	75.5	77.1	79.4	81.5	81.2	81.0	80.7	79.1	77.6	75.5	74.2	73.0	72.0	73.2	
Dodge, Kans.....	75.4	74.7	74.2	73.5	72.9	72.4	72.0	71.5	73.0	74.8	77.3	79.5	81.5	82.7	83.5	84.7	85.0	84.1	82.4	80.1	78.1	76.0	74.8	73.4	
Eastport, Me.....	55.3	55.2	54.8	54.7	54.7	55.6	57.3	59.0	60.6	62.6	63.8	64.2	65.3	65.5	65.0	64.2	63.2	62.4	60.1	59.3	57.7	57.0	56.5	59.6	
Galveston, Tex.....	80.9	80.7	80.5	80.3	79.7	79.8	79.7	80.4	80.5	81.6	82.7	84.1	85.0	85.6	85.2	84.9	84.7	83.9	82.3	81.5	80.2	79.0	78.0	76.0	
Havre, Mont.....	64.5	62.9	61.8	60.2	58.8	57.7	56.7	59.9	63.5	67.3	71.1	73.8	75.2	76.6	77.8	78.3	77.0	76.4	75.7	74.7	73.7	72.7	71.7	70.7	
Kansas City, Mo.....	74.2	73.5	72.4	71.5	70.9	70.0	69.8	70.8	73.3	75.5	78.2	80.1	81.8	83.1	84.2	85.0	85.3	85.4	83.9	82.3	80.6	77.5	75.6	74.7	
Key West, Fla.....	80.7	80.5	80.4	80.5	80.1	80.5	81.9	83.2	84.0	85.9	86.4	86.3	86.8	86.8	85.6	84.6	83.9	82.6	81.1	81.1	81.1	81.1	81.1	81.1	
Memphis, Tenn.....	75.4	74.7	74.2	73.5	72.9	72.4	72.0	71.5	73.0	74.8	77.3	79.5	81.5	82.7	83.5	84.7	85.0	84.8	83.6	82.6	81.6	80.6	79.6	78.4	
New Orleans, La.....	77.5	77.1	76.8	76.6	76.3	76.0	76.1	77.6	79.3	80.5	82.2	83.6	84.7	85.0	84.4	83.4	82.7	81.8	80.3	79.2	78.1	77.0	76.0	75.0	
New York, N. Y.....	70.5	69.7	69.2	68.9	68.4	68.5	69.1	70.5	72.2	74.4	75.9	76.9	78.0	78.9	78.4	77.3	76.2	75.2	74.3	73.3	72.3	71.1	70.3	73.3	
Philadelphia, Pa.....	72.3	71.8	71.1	70.6	70.1	70.5	72.0	74.0	75.9	78.3	80.2	82.1	83.7	84.8	85.7	85.5	85.4	85.3	84.8	83.7	82.6	81.6	80.5	79.5	
Pittsburgh, Pa.....	73.0	72.0	71.0	70.5	69.7	69.1	70.2	72.5	75.5	77.8	79.6	81.5	82.2	83.4	84.0	83.8	82.8	81.7	80.5	79.1	77.6	76.4	75.6	74.6	
Portland, Oreg.....	75.6	74.6	73.7	72.9	72.0	71.6	71.5	73.0	74.8	77.3	79.5	81.5	82.7	83.5	84.3	85.0	84.7	83.9	82.7	81.3	80.2	79.1	77.5	76.2	
St. Louis, Mo.....	69.5	68.1	66.4	65.5	64.5	63.5	63.8	65.5	67.7	70.5	73.4	75.7	77.5	78.6	80.0	80.9	81.6	81.8	81.1	79.5	77.4	75.1	73.0	71.2	
Salt Lake City, Utah.....	72.6	71.3	69.8	68.2	67.9	67.9	66.7	66.5	67.7	71.5	75.1	78.9	81.4	83.2	85.0	85.3	86.4	86.6	85.6	84.4	83.4	82.6	81.7	80.7	
San Diego, Cal.....	64.3	64.0	63.7	63.5	63.4	63.2	63.1	63.1	63.3	66.2	67.6	68.5	69.3	69.7	69.9	69.7	69.3	68.3	67.4	66.1	65.1	64.6	63.5	62.9	
San Francisco, Cal.....	53.0	52.7	52.6	52.2	52.1	52.1	51.9	52.3	51.9	54.5	55.3	55.1	55.9	56.9	56.0	56.0	55.9	55.8	54.7	53.6	52.5	51.5	50.5	49.5	
Savannah, Ga.....	76.2	76.0	75.6	75.3	75.1	75.0	76.4	78.4	80.9	82.8	83.8	85.4	86.0	86.2	85.8	84.2	82.2	81.3	80.2	79.2	77.7	76.6	75.8	74.8	
Washington, D. C.....	73.2	72.8	72.0	71.3	70.7	70.7	72.4	75.0	77.9	79.7	81.8	83.6	85.0	85.1	85.4	85.3	84.3	83.3	81.5	79.0	77.3	75.7	74.1	72.0	

TABLE V.—Mean pressure for each hour of seventy-fifth meridian time, July,

TABLE VI.—Average wind movement for each hour of seventy-fifth meridian time, July, 1898.

Stations.	Wind Movement												Wind Movement												
	1 a.m.	2 a.m.	3 a.m.	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.	10 p.m.	11 p.m.	Midnight.	Mean.
Abilene, Tex.	6.7	6.7	6.8	7.4	7.8	7.7	7.3	9.0	10.9	10.7	10.7	10.5	10.2	10.4	10.5	10.6	10.4	9.5	9.5	9.5	9.5	7.6	7.9	6.9	8.9
Albany, N. Y.	5.3	4.9	4.6	4.4	4.3	4.6	5.8	7.0	7.3	7.2	8.1	9.1	9.7	9.5	9.2	9.0	8.5	8.1	6.9	5.6	5.4	6.1	6.3	5.6	6.8
Alpena, Mich.	6.1	6.2	6.0	5.8	5.4	5.3	5.6	6.6	8.1	8.6	9.4	10.5	11.1	11.5	12.1	12.5	12.1	10.8	9.7	7.5	6.3	5.6	5.5	5.5	8.1
Amarillo, Tex.	13.8	13.5	13.6	13.1	13.2	12.8	12.9	12.4	13.5	15.5	15.8	14.7	13.6	13.1	13.6	14.1	14.1	17.0	16.3	14.9	13.9	13.7	13.9	12.9	14.1
Atlanta, Ga.	6.7	6.8	6.5	6.4	7.0	6.5	6.7	7.3	7.5	7.7	8.4	8.7	8.7	9.0	9.1	9.1	9.1	8.3	7.4	6.8	6.8	6.8	7.1	7.1	7.6
Atlantic City, N. J.	8.5	8.2	7.8	7.5	7.9	8.3	8.7	8.9	9.1	9.4	10.1	10.7	11.5	11.7	11.6	11.5	10.9	10.2	9.3	8.6	9.0	9.0	8.8	8.3	9.4
Augusta, Ga.	8.6	4.1	3.7	3.8	3.5	3.5	3.7	4.4	6.1	6.3	6.9	7.1	7.6	8.4	9.5	8.3	8.2	7.6	6.8	5.9	5.8	5.3	4.1	3.9	5.8
Baker City, Oreg.	3.3	3.0	4.1	5.0	6.2	6.8	7.4	7.6	7.4	8.8	8.8	9.0	10.2	11.0	11.5	12.3	12.8	12.5	11.6	11.5	10.3	10.2	11.6	10.6	10.8
Baltimore, Md.	3.9	4.0	3.8	3.6	3.6	4.2	4.5	5.2	5.9	5.5	6.1	6.3	7.2	7.3	7.3	6.7	6.3	5.6	4.6	4.5	4.3	3.8	3.7	5.1	5.1
Bismarck, N. Dak.	7.3	7.3	6.8	6.3	6.6	6.6	7.1	7.0	8.1	9.5	10.6	11.1	12.0	12.7	12.0	11.9	13.5	12.5	11.4	11.7	11.6	11.7	11.7	9.3	
Block Island, R. I.	9.7	9.1	9.4	9.7	10.1	11.2	11.3	11.7	11.3	11.5	11.8	12.2	13.6	13.3	13.2	13.6	13.3	11.6	10.7	11.6	11.3	10.5	9.6	11.5	
Boston, Mass.	8.5	8.1	7.5	7.3	8.1	8.2	8.1	9.3	9.8	10.6	11.2	11.9	11.6	12.1	12.1	11.3	10.5	9.7	8.9	9.1	8.2	8.2	9.2	9.2	
Buffalo, N. Y.	10.1	9.3	9.5	9.3	8.8	8.8	8.8	9.0	10.2	11.0	11.5	12.3	13.1	12.8	13.2	12.5	11.6	11.6	11.5	10.3	10.2	11.6	10.6	10.8	
Cairo, Ill.	5.6	5.8	5.5	5.4	5.6	6.2	6.2	7.0	7.0	7.5	7.7	8.4	8.9	8.7	8.8	8.3	8.2	8.4	7.3	6.9	6.2	5.5	5.5	5.4	6.9
Cape Henry, Va.	11.6	11.7	11.3	10.8	11.0	10.9	11.3	11.8	11.5	11.8	12.0	12.2	13.2	13.5	13.9	12.9	11.7	11.5	11.6	11.0	11.7	10.8	11.8		
Carson City, Nev.	6.9	5.6	5.1	4.2	3.5	2.9	3.0	2.6	2.0	1.4	1.8	3.9	5.5	6.8	8.9	10.6	12.4	13.7	13.8	13.3	12.2	10.0	8.2	7.5	6.9
Charleston, S. C.	7.8	7.9	8.3	7.9	7.5	7.9	8.5	9.0	9.4	9.7	10.2	10.5	11.1	11.9	12.7	12.6	12.8	13.0	11.6	10.5	10.3	9.0	8.4	9.9	
Charlotte, N. C.	5.0	5.2	5.0	5.0	4.6	5.1	5.5	6.4	6.6	6.9	6.8	7.0	7.2	7.2	7.5	7.7	7.4	7.3	5.6	5.5	5.2	5.3	6.1		
Chattanooga, Tenn.	4.3	4.7	4.4	4.3	4.0	3.9	3.6	4.6	6.1	6.9	7.1	7.2	8.1	8.1	7.7	9.1	8.5	7.5	6.1	4.7	4.3	4.5	6.0		
Cheyenne, Wyo.	8.1	7.7	7.5	6.8	7.1	7.2	7.3	6.9	8.1	8.6	10.9	11.9	12.5	13.2	12.3	11.7	11.5	12.1	12.5	10.9	8.6	9.2	8.6		
Chicago, Ill.	11.7	11.2	11.5	13.0	12.6	12.2	11.8	10.7	10.8	11.6	12.1	12.9	14.0	15.0	16.2	16.6	17.1	15.8	15.3	14.0	13.0	13.2	11.6	13.2	
Cincinnati, Ohio	4.1	4.2	4.1	3.9	3.8	3.7	4.1	5.3	6.4	6.4	7.1	8.1	9.2	9.5	10.0	9.8	8.2	8.2	7.6	6.5	5.5	4.8	4.2	6.2	
Cleveland, Ohio	10.6	10.5	10.6	10.7	11.0	10.6	9.8	9.3	9.8	10.6	11.8	12.1	12.7	13.6	13.9	14.0	13.7	12.1	11.5	10.5	10.4	10.2	11.3		
Columbia, Mo.	5.2	5.1	5.2	5.1	5.4	5.8	5.6	5.4	5.9	7.0	7.1	7.4	7.5	8.1	8.2	8.1	7.5	6.9	6.2	5.0	4.4	5.0	5.2	5.8	
Columbus, Ohio	5.7	5.2	4.6	4.4	4.5	4.5	4.7	5.6	6.0	6.4	7.1	7.7	7.8	8.0	8.2	8.6	8.1	8.2	8.1	6.4	6.0	6.1	6.4		
Concordia, Kans.	5.8	5.3	4.7	4.6	4.6	4.3	4.1	5.0	6.1	7.4	7.5	7.7	7.9	8.7	8.6	8.6	8.4	7.7	6.3	5.1	4.6	4.6	6.3		
Corpus Christi, Tex.	12.0	10.3	8.9	7.5	7.1	6.3	5.7	6.4	8.0	9.6	9.8	10.5	13.0	14.7	16.5	17.5	17.9	18.1	18.5	18.2	17.7	17.0	15.3	12.5	
Davenport, Iowa	4.8	4.1	4.1	4.2	4.2	4.3	4.8	5.1	6.1	6.5	7.0	7.2	8.1	8.7	8.7	8.9	8.0	7.9	6.5	5.2	4.7	4.9	4.9	5.7	
Denver, Colo.	8.3	7.6	7.5	7.3	7.3	7.8	6.1	5.8	6.0	5.9	6.1	7.1	6.7	6.8	7.5	8.5	9.5	10.1	9.3	9.9	9.4	9.3	8.8	7.9	
Des Moines, Iowa	2.8	2.8	2.8	3.8	3.8	3.0	2.9	3.4	4.4	5.5	5.5	6.9	7.4	7.7	7.8	7.0	7.3	7.0	6.1	4.9	3.9	3.1	3.3	2.8	
Detroit, Mich.	5.4	5.3	5.4	5.3	5.4	5.4	5.0	4.7	4.7	5.7	6.6	7.1	7.5	8.1	8.3	8.6	8.2	8.1	7.0	6.5	5.6	5.5	5.0	5.1	6.2
Dodge, Kans.	9.3	9.4	9.3	8.7	8.1	7.4	7.0	6.3	9.8	11.9	12.3	12.4	12.6	12.8	13.4	13.2	13.0	12.7	12.2	10.5	8.5	8.1	8.4	10.4	
Dubuque, Iowa	3.4	3.3	3.5	3.3	3.3	3.3	3.4	3.2	4.2	5.1	5.7	7.1	8.0	8.6	9.0	8.7	8.5	9.2	8.2	7.4	6.2	5.2	4.6	5.7	
Duluth, Minn.	8.3	7.9	7.5	7.0	8.3	8.2	8.5	8.3	8.4	8.9	9.5	9.6	10.7	11.5	11.5	11.3	10.8	10.0	9.3	8.5	8.8	9.2			
Eastport, Me.	6.5	6.9	6.3	6.8	6.9	6.9	6.2	6.1	6.7	6.0	6.6	7.6	8.4	8.9	9.6	10.1	9.8	9.5	8.3	7.5	7.6	6.2	6.0	7.5	
El Paso, Tex.	8.7	8.4	9.5	9.1	9.3	10.0	11.3	10.8	9.7	9.5	9.6	9.3	8.8	8.9	8.8	10.0	10.0	10.6	10.1	9.5	9.7	8.8	9.6	9.6	
Erie, Pa.	8.0	8.2	8.7	8.4	8.2	8.3	8.6	8.1	9.1	9.8	9.9	9.8	10.2	10.7	10.7	9.6	9.6	9.4	8.6	8.0	6.7	6.6	6.6	8.6	
Eureka, Cal.	5.7	4.9	4.3	4.5	4.0	4.1	3.9	4.0	3.6	3.4	4.3	4.4	5.5	5.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.4	
Evansville, Ind.	4.3	5.0	4.7	4.7	4.9	5.2	5.2	5.6	6.4	7.3	7.3	8.2	8.6	8.7	8.6	8.5	8.0	7.7	7.1	5.6	4.4	4.3	6.3		
Fort Canby, Wash.	9.2	8.5	8.6	8.6	8.1	8.2	7.8	8.7	8.2	7.5	7.5	7.3	7.9	7.7	8.6	8.8	9.8	10.4	10.1	9.8	9.8	10.4	8.9		
Fort Smith, Ark.	3.8	3.7	3.9	4.0	3.8	4.0	3.6	4.3	4.8	5.3	5.7	6.6	7.1	7.5	7.9	8.2	8.2	8.2	7.3	6.5	5.6	5.0	5.2	5.2	
Fresno, Cal.	10.4	10.0	9.9	8.7	7.4	6.6	6.2	4.9	4.6	4.3	4.6	4.7	5.2	5.0	5.6	5.8	6.3	6.1	6.8	7.3	8.5	8.8	9.4	6.9	
Galveston, Tex.	6.3	6.6	6.4	6.4	5.6	5.7	5.7	6.2	6.8	7.0	6.8	7.1	7.6	7.6	7.4	7.0	6.5	6.3	5.7	5.5	5.5	5.4	6.4		
Grand Haven, Mich.	6.4	6.6	6.4	6.1	5.7	5.9	6.0	6.9	7.4	7.6	8.7	9.5	11.1	11.5	11.7	11.0	10.8	9.7	8.3	7.2	5.9	5.8			
Green Bay, Wis.	4.7	4.7	5.5	5.4	5.2	4.7	4.6	5.5	6.5	6.8	7.6	8.0	8.0	8.5	8.8	8.5	7.8	7.2	6.5	5.5	5.3	5.0	6.5		
Hannibal, Mo.	6.2	6.1	6.0	5.7	5.8	5.9	5.5	6.1	7.0	8.2	8.4	8.7	9.4	9.8	9.6	9.5	9.3	8.9	8.3	7.7	7.2	7.2	7.2		
Harrisburg, Pa.	4.2	3.9	3.8	3.4	3.3	3.2	3.8	5.0	5.5	6.1	6.8	7.0	7.2	7.5	8.0	8.0	7.6	7.2	6.1	5.5	5.3	4.8	5.6		
Hatteras, N. C.	10.0	9.8	9.2	9.0	9.1	9.0	9.5	10.8	10.6	11.0	11.1	11.6	12.4	13.4	13.0	12.6	12.6	12.0	11.1	10.5	10.3	10.5	10.9		
Havre, Mont.	7.9	7.8	7.4	7.7	8.2	7.8	6.8	7.3	8.2	9.5															

TABLE VI.—*Average wind movement, etc.—Continued.*

Stations.	Average wind movement, etc.												Average wind movement, etc.													
	1 a.m.	2 a.m.	3 a.m.	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.	10 p.m.	11 p.m.	Midnight.	Mean.	
Palestine, Tex.....	4.7	4.8	4.5	4.3	4.4	4.8	4.1	4.4	6.1	7.3	7.2	6.6	6.7	6.9	7.4	7.6	7.5	6.7	6.5	5.5	4.1	4.1	3.9	4.3	5.6	
Parkersburg, W. Va.....	3.1	2.9	3.0	3.2	3.1	3.4	3.3	3.7	4.5	4.9	5.5	5.7	6.7	6.5	6.7	6.8	6.3	5.7	5.0	4.0	3.8	3.8	3.7	3.4	4.5	
Pensacola, Fla.....	8.2	8.6	8.7	9.1	8.5	7.4	7.3	6.9	7.6	8.1	8.6	9.0	10.1	11.1	11.2	11.3	11.4	11.3	10.0	9.1	7.7	7.5	8.0	8.4	9.0	
Philadelphia, Pa.....	7.2	7.2	7.1	7.4	7.3	7.3	7.5	8.1	8.2	8.1	8.5	8.9	9.0	9.6	10.1	10.5	10.2	10.3	10.1	10.1	8.7	8.4	7.6	7.2	8.5	
Phoenix, Ariz.....	5.1	5.2	4.5	4.6	4.7	8.9	3.9	3.5	3.4	3.7	4.5	5.1	4.8	5.1	5.0	5.3	6.0	5.6	5.4	4.8	4.6	4.3	4.4	5.0	4.7	
Pierre, S. Dak.....	9.9	8.5	7.4	7.3	7.5	7.5	7.1	7.2	8.2	9.4	11.1	11.3	12.5	12.6	12.8	12.8	13.6	14.1	14.4	13.4	11.3	10.4	9.6	10.5		
Pittsburg, Pa.....	3.4	3.3	3.0	2.9	2.9	3.4	3.7	4.4	5.1	5.3	5.7	5.6	6.6	6.9	7.5	7.1	7.1	7.1	5.9	5.3	5.1	4.7	4.0	3.7	5.0	
Port Angeles, Wash.....	6.0	5.7	6.0	5.7	5.4	5.3	5.1	5.2	4.9	4.3	5.4	5.2	5.7	5.8	8.7	9.1	10.9	11.8	12.5	13.5	13.1	12.8	10.8	8.1	8.0	
Port Huron, Mich.....	7.5	7.0	6.6	6.3	6.4	6.9	6.8	7.0	7.6	8.0	9.1	10.0	11.0	11.6	10.9	11.4	10.2	9.6	9.1	7.9	7.1	7.3	7.2	8.3		
Portland, Me.....	5.1	5.2	5.5	5.3	4.8	5.0	5.4	5.4	6.0	7.4	8.2	8.6	9.4	10.1	10.3	9.9	8.6	7.5	7.1	5.9	5.7	5.7	7.0			
Portland, Oreg.....	8.9	8.1	6.9	6.6	6.1	5.5	5.7	5.1	4.8	6.0	7.6	7.8	7.7	7.5	7.7	7.5	8.1	8.7	9.5	9.5	10.2	10.0	9.5	9.6	7.7	
Pueblo, Colo.....	7.4	6.9	6.2	5.7	5.0	5.1	4.7	4.0	4.7	4.9	6.1	7.2	8.2	9.2	9.3	9.6	10.6	10.6	12.2	12.6	10.5	10.5	9.5	7.5	7.9	
Raleigh, N. C.....	4.3	4.3	4.5	4.8	4.5	4.3	4.9	5.8	6.1	6.4	6.3	6.6	7.3	7.0	7.0	6.9	6.8	6.8	5.7	4.9	5.1	5.1	4.8	4.7	5.6	
Rapid City, S. Dak.....	6.7	7.2	6.3	6.0	6.3	5.0	5.4	5.7	6.4	6.6	8.3	9.6	10.7	10.2	9.7	9.6	9.5	9.3	9.8	9.4	8.6	6.7	6.1	6.2	7.7	
Red Bluff, Cal.....	6.0	5.6	5.4	4.5	5.3	4.7	4.1	3.9	3.6	3.7	4.9	5.3	5.5	5.3	5.4	5.9	6.5	6.0	6.9	7.0	6.2	5.5	5.5	5.4		
Richmond, Va.....	4.5	5.0	4.3	4.5	4.7	4.4	5.1	5.6	6.6	6.8	7.1	7.3	7.0	7.5	7.4	7.5	7.4	7.5	6.5	6.1	5.7	4.7	4.8	5.9		
Rochester, N. Y.....	5.9	5.8	5.6	5.0	4.9	5.4	6.0	6.5	6.9	7.1	7.8	9.0	9.2	10.0	9.2	8.8	7.7	6.5	5.1	4.9	4.9	5.2	5.2	6.7		
Roseburg, Oreg.....	2.8	2.1	2.2	2.1	2.2	2.0	1.9	2.2	1.7	2.2	2.5	3.3	3.9	4.1	4.9	5.5	6.8	7.7	8.7	9.1	9.3	9.2	7.1	4.1	4.5	
Sacramento, Cal.....	10.5	10.2	10.5	10.9	10.7	10.1	9.8	9.7	8.8	8.5	8.1	7.5	7.2	7.7	8.0	8.6	9.5	10.3	11.4	11.8	11.4	11.2	11.5	10.7	9.8	
St. Louis, Mo.....	7.3	7.5	8.0	7.2	7.1	6.5	6.3	7.5	6.9	7.4	8.5	8.7	9.0	9.1	9.9	9.4	9.6	9.5	8.7	7.6	6.6	6.5	6.3	7.1	7.8	
St. Paul, Minn.....	5.5	5.5	5.4	5.2	5.2	5.0	4.6	5.6	6.4	7.7	8.4	8.6	9.4	9.7	9.6	9.8	9.2	9.1	8.5	7.6	5.8	5.0	5.0	4.9	7.0	
Salt Lake City, Utah.....	4.6	5.5	5.2	4.5	5.2	4.6	4.5	4.7	4.0	3.6	4.7	5.5	7.1	7.5	7.9	7.9	8.0	8.2	7.6	7.1	5.7	5.7	5.9	4.4	5.8	
San Antonio, Tex.....	9.1	7.5	6.2	5.5	5.8	5.0	4.9	5.2	6.6	8.2	8.0	7.9	7.5	8.2	8.8	8.9	10.1	10.1	10.9	11.3	10.7	11.0	10.8	10.1	8.3	
San Diego, Cal.....	3.4	3.4	3.2	2.9	3.2	3.1	3.2	3.2	3.1	3.4	4.0	4.7	6.7	7.9	9.5	10.6	11.0	11.3	10.9	10.4	9.6	8.1	6.7	5.5	4.4	6.3
Sandusky, Ohio.....	7.0	6.5	6.0	6.2	6.8	6.2	5.7	6.1	6.9	8.0	7.6	7.8	8.2	8.5	8.7	9.3	9.0	8.4	7.4	6.4	6.6	6.9	6.2	5.7	7.2	
San Francisco, Cal.....	15.9	13.5	11.3	10.7	10.8	9.8	9.7	8.7	8.8	9.7	10.4	10.7	12.1	14.6	17.5	20.6	23.8	24.8	26.3	26.1	24.5	22.6	19.4	16.6	15.8	
San Luis Obispo, Cal.....	2.5	2.2	2.4	2.8	3.1	2.6	2.6	2.5	2.7	3.1	3.6	3.9	4.7	5.5	6.6	7.0	7.4	6.7	6.4	6.1	5.5	4.8	4.1	2.9	4.3	
Santa Fe, N. Mex.....	7.2	5.2	4.0	3.9	3.1	2.5	1.8	1.7	2.4	3.3	4.2	5.0	6.3	7.3	7.7	8.5	8.0	7.2	7.9	8.0	8.9	7.4	7.5	7.8		
Sault Ste. Marie, Mich.....	5.2	5.8	5.0	5.1	5.0	4.9	5.0	6.2	6.6	8.3	8.7	9.2	10.2	11.2	11.9	12.0	11.8	11.0	9.4	8.8	8.0	6.3	5.7	7.8		
Savannah, Ga.....	6.3	5.9	6.0	5.2	5.6	5.3	5.6	5.5	7.1	7.3	7.6	7.4	8.1	8.7	8.9	9.4	9.7	9.6	8.6	7.4	7.0	6.2	5.9	7.2		
Seattle, Wash.....	3.2	2.9	2.6	2.8	2.7	2.5	2.7	2.6	2.6	2.9	3.7	4.2	4.9	5.7	6.1	5.9	6.7	6.9	7.1	7.0	6.6	5.8	4.9	3.9	4.5	
Shreveport, La.....	4.9	4.7	4.6	4.1	3.9	3.9	3.8	4.1	5.1	5.7	6.1	6.2	6.5	6.7	6.5	6.8	7.6	7.4	6.7	5.9	5.4	5.2	5.0	5.3		
Sioux City, Iowa.....	9.5	9.2	10.1	10.0	10.0	9.1	9.4	9.3	9.5	10.9	11.0	12.5	12.6	12.7	12.4	12.6	12.8	12.2	11.3	10.5	9.3	9.6	9.5	9.1	10.6	
Spokane, Wash.....	4.9	4.5	4.0	4.4	4.5	4.5	4.2	4.5	4.7	4.8	5.8	6.6	7.1	7.2	7.9	8.0	7.9	8.5	8.2	8.9	8.3	7.8	6.5	5.1	6.4	
Springfield, Ill.....	6.0	5.5	5.2	4.9	4.5	4.8	5.2	6.1	6.3	6.4	7.3	7.7	8.3	8.9	8.8	8.2	7.9	7.4	5.7	5.0	5.4	5.9	5.0	5.5		
Springfield, Mo.....	7.5	8.3	7.6	7.1	7.1	7.6	7.5	8.3	8.6	9.4	8.9	9.1	8.9	8.9	9.0	10.2	9.7	9.3	8.1	7.3	7.5	7.7	8.3			
Tacoma, Wash.....	6.6	5.6	4.7	4.5	3.8	3.6	3.3	3.3	2.9	3.7	4.6	5.7	6.5	7.3	7.7	7.2	7.4	7.1	6.9	7.2	7.3	6.8	7.0	5.7		
Tampa, Fla.....	5.0	4.5	5.0	4.5	4.4	4.1	5.1	5.6	6.3	6.5	6.8	7.4	7.7	7.4	8.0	7.1	6.2	6.3	5.4	4.7	4.1	4.0	6.0			
Toledo, Ohio.....	7.7	6.5	6.4	6.7	6.5	6.1	6.0	7.0	8.2	8.2	9.1	10.2	10.1	10.7	10.5	10.4	10.4	9.7	9.0	7.3	6.5	7.3	6.9	8.1		
Vicksburg, Miss.....	5.1	4.8	4.6	4.7	4.8	4.8	4.4	4.7	5.4	5.8	5.7	5.8	5.8	6.2	6.7	6.9	6.6	6.5	5.9	5.8	5.0	4.7	5.5	5.4		
Vineyard Haven, Mass.....	6.9	6.5	6.2	6.1	6.2	6.4	7.1	7.5	7.8	8.4	8.2	8.5	8.9	8.5	8.7	8.5	8.2	7.6	6.8	6.3	6.7	7.2	7.1	6.7	7.4	
Walla Walla, Wash....	5.8	5.7	5.3	4.8	5.4	5.4	5.1	4.8	4.7	4.7	5.1	6.1	5.7	6.0	5.9	6.3	6.1	6.4	6.4	5.7	6.7	5.3	5.7	5.6		
Washington, D. C.....	3.6	4.0	3.5	3.8	3.5	3.3	3.6	4.7	5.6	6.2	6.4	6.5	6.7	7.2	7.7	7.7	7.6	6.0	5.0	4.3	4.3	3.8	3.5	5.8		
Wichita, Kans.....	6.2	6.1	6.1	6.4	6.1	6.0	5.7	5.8	6.4	6.9	7.3	8.1	9.1	9.0	9.5	9.0	9.2	8.9	8.4	7.4	6.5	5.8	6.2	6.0		
Williston, N. Dak....	5.5	5.7	5.8	5.2	5.2	4.6	4.7	4.9	5.0	6.3	7.6	7.1	8.9	9.8	9.9	10.0	11.1	11.3	10.6	10.4	9.4	7.2	5.7	5.6	7.4	
Wilmette, N. C.....	5.5	5.5	5.5	5.6	5.1	5.3	5.5	6.4	6.7	6.8	7.9	8.0	9.0	9.7	9.9	9.8	9.9	9.9	8.8	8.0	7.3	6.0	5.7	7.1		
Winemucca, Nev....	8.8	8.8	8.4	8.0	7.8	7.6	7.9	7.1	6.9	6.8	7.2	8.4	9.6	10.2	10.5	11.7	13.1	13.1	13.2	12.5	11.9	10.3	7.2	7.9		
Woods Hole, Mass....	9.6	9.6	9.2	9.7	9.6	9.7	10.4	10.4	10.5	9.8	9.9	10.4	11.3	11.8	12.2	12.3	11.7	10.7	9.7	10.0	9.7	9.7	10.4	10.1	10.4	
Yankton, S. Dak....	7.0	7.3	6.2	6.																						

TABLE VII.—Resultant winds from observations at 8 a. m. and 8 p. m., daily, during the month of July, 1898.

Stations.	Component direction from—				Resultant.		Stations.	Component direction from—				Resultant.	
	N.	S.	E.	W.	Direction from—	Duration.		N.	S.	E.	W.	Direction from—	Duration.
<i>New England.</i>													
Eastport, Me.	20	32	4	12	s. 34 w.	14	Upper Lake Region—Cont'd.	Hours.	Hours.	Hours.	Hours.	o	Hours.
Portland, Me.	18	29	10	21	s. 45 w.	16	Milwaukee, Wis.	21	19	26	13	n. 81 e.	13
Northfield, Vt.	16	39	5	9	s. 10 w.	23	Green Bay, Wis.	11	20	23	11	s. 34 e.	22
Boston, Mass.	17	19	15	23	s. 76 w.	8	Duluth, Minn.	31	7	21	23	n. 5 w.	24
Nantucket, Mass.	9	28	18	26	s. 23 w.	21	North Dakota.						
Woods Hole, Mass.*	3	20	10	5	s. 16 e.	18	Moorhead, Minn.	20	23	22	17	s. 59 e.	6
Block Island, R. I.	13	23	17	23	s. 31 w.	12	Bismarck, N. Dak.	20	14	21	20	n. 9 e.	6
New Haven, Conn.	20	24	18	9	s. 66 e.	10	Williston, N. Dak.	22	22	12	17	w.	5
<i>Middle Atlantic States.</i>													
Albany, N. Y.	19	30	10	12	s. 10 w.	11	Upper Mississippi Valley.						
Binghamton, N. Y.†	11	5	11	10	s. 9 e.	6	St. Paul, Minn.	15	27	16	20	s. 18 w.	13
New York, N. Y.	17	23	21	16	s. 40 e.	8	La Crosse, Wis.†	7	19	6	3	s. 14 e.	12
Harrisburg, Pa.†	11	5	7	12	n. 40 w.	8	Davenport, Iowa	20	20	23	15	e.	8
Philadelphia, Pa.	14	21	22	20	s. 16 e.	7	Des Moines, Iowa	17	29	13	11	s. 9 e.	12
Atlantic City, N. J.	8	26	24	18	s. 18 e.	19	Dubuque, Iowa	19	25	15	18	s. 27 w.	7
Cape May, N. J.	11	31	24	8	s. 39 e.	26	Keokuk, Iowa	21	22	16	11	s. 79 e.	5
Baltimore, Md.	21	22	23	12	s. 85 e.	11	Cairo, Ill.	20	27	18	10	s. 49 e.	11
Washington, D. C.	21	25	15	11	s. 45 e.	6	Springfield, Ill.	13	26	20	10	s. 38 e.	16
Lynchburg, Va.	22	14	26	16	n. 51 e.	13	Hannibal, Mo.†	9	11	10	7	s. 56 e.	4
Norfolk, Va.	12	23	28	17	s. 45 e.	16	St. Louis, Mo.	18	27	19	9	s. 48 e.	14
<i>South Atlantic States.</i>													
Richmond, Va.	22	24	18	8	s. 73 e.	10	Missouri Valley.						
Charlotte, N. C.	13	21	31	10	s. 69 e.	22	Columbia, Mo.*	7	13	15	2	s. 65 e.	14
Hatteras, N. C.	16	32	13	11	s. 7 e.	16	Kansas City, Mo.	24	23	30	3	n. 2 e.	27
Raleigh, N. C.	22	19	18	22	s. 53 w.	5	Springfield, Mo.	13	30	26	8	s. 47 e.	25
Wilmington, N. C.	15	21	17	25	s. 53 w.	10	Lincoln, Nebr.	14	23	30	3	s. 63 e.	30
Charleston, S. C.	11	26	17	25	s. 28 w.	17	Omaha, Nebr.	21	23	23	7	s. 66 e.	18
Augusta, Ga.	10	27	16	22	s. 19 w.	18	Sioux City, Iowa†	7	15	9	5	s. 27 e.	9
Savannah, Ga.	10	34	9	21	s. 27 w.	27	Pierre, S. Dak.	18	23	30	6	s. 78 e.	24
Jacksonville, Fla.	6	37	20	12	s. 14 e.	32	Huron, S. Dak.†	17	33	17	3	s. 29 e.	18
<i>Florida Peninsula.</i>							Yankton, S. Dak.†	7	13	7	7	s.	6
Jupiter, Fla.	2	33	32	8	s. 38 e.	39	<i>Northern Slope.</i>						
Key West, Fla.	0	23	46	2	s. 62 e.	50	Havre, Mont.	16	15	15	26	n. 85 w.	11
Tampa, Fla.	12	18	37	8	s. 78 e.	30	Miles City, Mont.	25	13	5	22	n. 55 w.	21
<i>Eastern Gulf States.</i>							Helena, Mont.	14	24	9	35	s. 69 w.	28
Atlanta, Ga.	10	25	22	21	s. 4 e.	15	Rapid City, S. Dak.	17	14	19	26	n. 67 w.	8
Pensacola, Fla.	18	27	14	22	s. 42 w.	12	Cheyenne, Wyo.	19	25	7	24	s. 71 w.	18
Mobile, Ala.	23	22	8	18	n. 84 w.	10	Lander, Wyo.	17	21	15	26	s. 70 w.	12
Montgomery, Ala.	9	30	12	25	s. 31 w.	25	North Platte, Nebr.	15	33	15	14	s. 3 e.	18
Vicksburg, Miss.	12	20	29	12	s. 65 e.	19	<i>Middle Slope.</i>						
New Orleans, La.	15	26	13	18	s. 24 w.	12	Denver, Colo.	17	28	11	22	s. 45 w.	16
<i>Western Gulf States.</i>							Pueblo, Colo.	27	9	18	19	n. 3 w.	29
Shreveport, La.	13	28	33	8	s. 59 e.	29	Concordia, Kans.	12	23	27	4	s. 55 e.	35
Fort Smith, Ark.	11	10	43	5	s. 88 e.	38	Dodge, Kans.	9	40	25	4	s. 34 e.	28
Little Rock, Ark.	17	30	18	8	s. 88 e.	16	Wichita, Kans.	12	33	23	5	s. 41 e.	31
Corpus Christi, Tex.	5	40	29	5	s. 34 e.	42	Oklahoma, Okla.	11	29	28	3	s. 54 e.	31
Galveston, Tex.	8	40	15	12	s. 5 e.	32	<i>Southern Slope.</i>						
Palestine, Tex.	14	36	16	7	s. 22 e.	35	Abilene, Tex.	9	40	23	4	s. 31 e.	36
San Antonio, Tex.	14	30	34	3	s. 63 e.	35	Amarillo, Tex.	9	40	12	4	s. 14 e.	32
<i>Ohio Valley and Tennessee.</i>							<i>Southern Plateau.</i>						
Chattanooga, Tenn.	17	30	18	14	s. 17 e.	14	El Paso, Tex.	23	11	39	8	n. 69 e.	33
Knoxville, Tenn.	21	22	14	20	s. 9 w.	6	Santa Fe, N. Mex.	16	27	21	8	s. 50 e.	17
Memphis, Tenn.	20	25	18	15	s. 31 e.	6	Phoenix, Ariz.	20	8	19	26	n. 30 w.	14
Nashville, Tenn.	18	22	18	19	s. 14 w.	4	Yuma, Ariz.	5	27	9	31	s. 45 w.	31
Lexington, Ky.	10	25	22	17	s. 18 e.	16	Independence, Cal.	20	22	16	22	s. 72 w.	6
Louisville, Ky.	19	26	14	10	s. 30 e.	10	<i>Middle Plateau.</i>						
Evansville, Ind.†	9	15	11	3	s. 53 e.	10	Carson City, Nev.	7	19	5	40	s. 71 w.	37
Indianapolis, Ind.	22	22	16	18	w.	11	Winnemucca, Nev.	16	19	13	30	s. 80 w.	17
Cincinnati, Ohio	20	23	23	12	s. 75 e.	11	Salt Lake City, Utah.	16	22	19	20	s. 9 w.	6
Columbus, Ohio	16	22	20	20	s.	6	<i>Northern Plateau.</i>						
Pittsburg, Pa.	12	22	16	20	s. 22 w.	11	Baker City, Oreg.	21	32	8	8	s.	11
Parkersburg, W. Va.	12	25	26	11	s. 49 e.	20	Idaho Falls, Idaho.	19	24	7	16	s. 61 w.	10
<i>Lower Lake Region.</i>							Spokane, Wash.	14	22	20	19	s. 7 e.	8
Buffalo, N. Y.	13	22	18	25	s. 38 w.	11	Walla Walla, Wash.	8	33	11	20	s. 21 w.	26
Oswego, N. Y.	15	29	11	20	s. 33 w.	16	<i>North Pacific Coast Region.</i>						
Rochester, N. Y.	13	28	11	31	s. 53 w.	25	Fort Canby, Wash.	40	6	3	22	n. 29 w.	39
Erie, Pa.	16	24	14	19	s. 32 w.	9	Port Angeles, Wash.†	17	0	4	20	n. 43 w.	23
Cleveland, Ohio.	23	22	25	7	s. 37 e.	18	Seattle, Wash.	22	18	10	24	n. 74 w.	15
Sandusky, Ohio.	12	22	28	13	s. 56 e.	18	Tacoma, Wash.	30	10	2	26	n. 50 w.	31
Toledo, Ohio.	17	14	29	16	n. 77 e.	13	Portland, Oreg.	36	13	7	23	n. 35 w.	28
Detroit, Mich.	21	18	22	20	n. 34 e.	4	Roseburg, Oreg.	42	2	20	15	n. 7 e.	40
<i>Upper Lake Region.</i>							<i>Middle Pacific Coast Region.</i>						
Alpena, Mich.	24	18	17	21	n. 34 w.	7	Eureka, Cal.	28	11	3	38	n. 64 w.	39
Grand Haven, Mich.	27	15	13	24	n. 43 w.	16	Red Bluff, Cal.	20	29	21	5	s. 61 e.	18
Marquette, Mich.	22	22	12	23	w.	11	Sacramento, Cal.	6	43	5	21	s. 23 w.	40
Port Huron, Mich.	27	22	22	6	n. 73 e.	17	San Francisco, Cal.	2	23	0	40	s. 57 w.	48
Sault Ste. Marie, Mich.	19	11	19	26	n. 41 w.	11	<i>South Pacific Coast Region.</i>						
Chicago, Ill.	24	16	24	14	n. 51 e.	13	Fresno, Cal.	31	5	4	41	n. 55 w.	45
							Los Angeles, Cal.	2	19	3	46	s. 68 w.	46
							San Diego, Cal.	23	16	2	39	n. 81 w.	38
							San Luis Obispo, Cal.	25	20	3	23	n. 75 w.	20

* From observations at 8 p. m. only.

† From observations at 8 a. m. only.

TABLE VIII.—*Thunderstorms and auroras, July, 1898.*

TABLE IX.—Average hourly sunshine (in percentages), July, 1898.

Stations.	Instrument.	Percentages for each hour of local mean time ending with the respective hour.												Hours of sunshine.								
		A. M.						P. M.						Total.								
		5	6	7	8	9	10	11	Noon	1	2	3	4	5	6	7	8	Actual.	Possible.	Percent of possible.	Personal estimate.	
Albany, N. Y.	T.	51	44	51	62	71	82	88	98	93	95	95	91	83	68	51	46	347.1	465.2	75	49	
Atlanta, Ga.	T.	42	33	32	35	42	52	57	66	67	58	55	46	42	41	32	39	206.7	439.7	47	30	
Atlantic City, N. J.	P.	50	40	40	46	52	58	61	58	71	73	77	67	63	50	41	39	254.9	453.0	56	51	
Baltimore, Md.	T.	27	23	20	30	48	68	83	85	81	85	81	73	66	65	47	25	271.4	453.0	60	56	
Binghamton, N. Y.	T.	33	30	35	43	55	69	69	74	71	71	64	55	42	39	23	26	238.7	461.8	51	38	
Bismarck, N. Dak.	P.	74	75	75	75	75	76	75	74	74	74	74	75	76	71	77	74	357.0	479.6	74	60	
Boston, Mass.	T.	36	45	50	56	53	55	56	67	67	71	64	52	51	51	42	37	252.1	461.8	55	43	
Buffalo, N. Y.	T.	55	51	76	89	94	95	91	88	94	97	90	89	87	73	53	39	376.2	465.2	81	45	
Charleston, S. C.	T.	43	20	26	41	42	45	48	50	55	41	43	40	35	19	23	106.8	437.2	38	37		
Chattanooga, Tenn.	T.	43	35	36	45	53	57	62	68	69	70	63	57	42	35	24	28	221.6	442.0	50	47	
Cheyenne, Wyo.	P.	69	67	77	81	83	88	87	81	75	66	66	68	67	73	56	43	333.8	458.6	73	60	
Chicago, Ill.	T.	45	41	49	74	84	85	87	89	86	90	89	86	88	72	63	69	352.7	461.8	76	60	
Cincinnati, Ohio.	T.	70	68	68	74	83	84	82	93	93	96	90	88	74	69	55	61	300.0	453.0	79	58	
Cleveland, Ohio.	T.	70	65	64	64	78	76	79	85	84	84	85	82	78	65	57	60	341.2	461.8	74	73	
Columbia, Mo.	T.	61	57	55	63	74	74	82	85	84	87	84	82	76	75	74	68	338.8	453.0	75	53	
Columbus, Ohio.	T.	71	74	91	95	100	99	99	99	98	91	95	94	97	94	67	65	415.1	455.2	91	57	
Denver, Colo.	P.	68	66	71	84	87	89	89	82	69	77	66	55	57	61	63	77	331.2	455.2	73	56	
Des Moines, Iowa.	T.	81	81	78	81	88	90	95	92	89	85	80	68	62	65	62	69	366.8	461.8	79	54	
Detroit, Mich.	T.	61	58	62	79	83	88	83	89	89	85	86	82	74	66	63	63	353.3	461.8	77	62	
Dodge, Kans.	P.	40	55	72	71	76	80	86	83	77	80	79	79	75	44	32	326.7	450.1	73	62		
Dubuque, Iowa.	T.	66	61	76	82	95	98	96	92	91	91	93	89	85	73	64	67	386.6	461.8	84	73	
Eastport, Me.	P.	36	34	41	45	49	53	58	58	61	66	69	72	63	54	42	33	249.6	471.7	53	36	
Erie, Pa.	T.	70	68	71	78	79	81	86	88	87	88	79	78	67	58	49	50	343.4	461.8	74	55	
Eureka, Cal.	P.	4	8	9	13	19	30	44	55	59	55	56	54	51	56	46	45	179.7	458.6	39	40	
Fresno, Cal.	T.	74	74	74	78	91	95	99	99	100	97	99	97	92	85	84	84	402.8	447.4	90	90	
Galveston, Tex.	P.	33	65	72	74	79	79	79	81	73	69	70	70	71	54	15	8	278.7	427.4	65	51	
Helena, Mont.	P.	76	80	82	82	89	85	87	80	74	77	67	67	73	63	51	51	365.6	479.6	76	70	
Huron, S. Dak.	T.	58	55	55	61	69	69	70	75	75	71	68	52	44	41	51	48	288.0	468.4	80	55	
Idaho Falls, Idaho.*	T.	55	62	71	86	91	92	91	93	96	88	81	81	73	73	63	50	297.2	373.4	69	55	
Indianapolis, Ind.	T.	61	58	58	61	79	85	83	77	75	75	73	72	64	57	61	65	313.8	455.2	69	55	
Jacksonville, Fla.	T.	30	38	52	75	81	84	86	83	73	65	51	39	27	22	27	249.0	429.6	58	45		
Kansas City, Mo.	P.	56	53	60	66	78	78	78	81	77	80	85	84	75	67	49	58	323.8	453.0	71	62	
Key West, Fla.	T.	33	43	43	69	72	71	81	80	88	85	81	74	47	26	12	263.5	419.1	63	62		
Knoxville, Tenn.	T.	48	29	32	45	63	68	74	76	75	75	75	70	65	47	40	30	36	249.3	444.3	56	46
Little Rock, Ark.	T.	62	54	54	50	60	68	68	70	70	71	66	60	51	47	45	45	263.0	442.0	80	43	
Los Angeles, Cal.	P.	25	42	39	56	72	86	96	99	94	97	99	100	97	94	91	91	365.4	439.7	88	69	
Louisville, Ky.	T.	53	45	45	51	63	77	81	85	86	85	85	75	73	51	57	40	300.5	450.1	66	43	
Minneapolis, Minn.	T.	40	39	51	69	74	73	86	87	85	83	88	76	75	62	44	41	321.0	471.7	68	54	
Nashville, Tenn.	T.	58	49	52	68	77	90	90	92	89	87	87	75	73	71	57	37	325.3	444.3	73	54	
New Orleans, La.	T.	40	39	43	53	57	65	66	62	53	46	40	40	25	23	27	27	199.9	429.6	47	52	
New York, N. Y.	T.	36	24	39	45	55	57	66	66	50	75	76	64	58	48	19	21	242.9	458.6	53	45	
Northfield, Vt.	P.	38	42	57	68	76	79	79	77	75	75	69	64	58	41	41	300.5	468.4	64	50		
Oklahoma, Okla.	T.	62	71	74	87	94	98	98	100	97	97	98	85	88	83	79	75	389.9	442.0	81	81	
Omaha, Nebr.	T.	49	51	68	78	79	75	68	63	68	73	74	76	73	77	74	73	324.8	458.6	71	67	
Parkersburg, W. Va.	T.	47	39	38	49	67	75	76	76	67	75	69	62	58	43	26	30	261.4	453.0	58	51	
Philadelphia, Pa.	T.	52	42	42	46	55	70	77	89	93	95	90	77	67	50	37	38	297.9	455.2	65	40	
Phenix, Ariz.	P.	14	48	66	77	87	84	88	90	93	92	90	83	74	57	348.5	437.2	80	76			
Pittsburg, Pa.	T.	48	42	56	75	86	90	92	92	91	88	85	78	68	67	52	55	342.5	458.6	75	41	
Portland, Me.	T.	29	34	49	53	67	82	85	90	89	89	87	84	77	58	37	21	312.3	468.4	67	42	
Portland, Oreg.	T.	49	44	46	48	68	76	86	90	90	89	90	92	82	72	68	84	354.0	475.7	74	69	
Raleigh, N. C.	T.	42	38	30	37	47	57	73	79	74	73	66	60	43	27	25	28	227.4	444.3	51	39	
Rochester, N. Y.	T.	65	67	72	74	78	83	84	80	84	78	77	79	70	60	55	50	316.8	453.0	72	67	
St. Louis, Mo.	T.	51	44	48	62	75	83	83	81	81	83	83	80	76	69	70	59	343.8	471.7	73	61	
St. Paul, Minn.	P.	59	60	69	78	81	76	79	80	79	79	73	75	75	70	59	67	343.8	471.7	73	61	
Salt Lake City, Utah.	P.	55	64	75	81	85	89	86	91	88	86	91	90	89	86	81	71	382.3	458.6	83	65	
San Diego, Cal.	T.	29	17	18	30	53	66	77	91	93	93	93	90	83	80	71	68	299.6	437.2	69	60	
San Francisco, Cal.	T.	11	13	36	40	60	80	96	98	100	100	99	97	92	70	44	40	322.5	450.1	72	60	
Santa Fe, N. Mex. †	P.	52	61	74	73	81	88	83	76	66	51	61	58	44	35	14	8	251.9	416.3	61	37	
Savannah, Ga.	P.	33	34	52	58	55	52	55	62	61	56	62	58	45	44	37	27	226.9	434.5	52	40	
Seattle, Wash.	T.	34	39	40	42	51	63	74	83	84	81	80	77	72	63	52	50	299.8	483.2	62	65	
Spokane, Wash.	T.	83	84	83	89	95	97	97	95	89	90	92	89	81	82	78	68	421.5	483.2	87	72	
Tacoma, Wash.	T.	43	44	45	58	70	75	82	84	88	85	85	85	80	76	67	57	341.7	479.6	71	69	
Tampa, Fla.	T.	65	64	64	76	73	73	70	65	65	68	68	65	64	62							

TABLE X.—Accumulated amounts of precipitation for each 5 minutes, for storms in which the rate of fall equaled or exceeded 0.25 in any 5 minutes, or 0.75 in 1 hour during July, 1898, at all stations furnished with self-registering gauges.

Stations.	Date.	Total duration.		Total amt. of precip- itation.	Excessive rate.		Amount be- fore exces- sive began.	Depths of precipitation (in inches) during periods of time as indicated.													
		From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
		1	2	3	4	5	6	7													
Albany, N. Y.	25-26			0.46																0.18	
Atlanta, Ga.	23	2.25 p.m.	7.00 p.m.	4.63	2.42 p.m.	4.42 p.m.	0.02	0.27	0.67	0.90	1.19	1.47	1.74	1.85	1.96	2.02	2.09				
Atlantic City, N. J.	12-13			1.18																	
Baltimore, Md.	19	1.45 p.m.	4.25 p.m.	1.01	2.07 p.m.	2.35 p.m.	0.01	0.12	0.36	0.58	0.81	0.91	0.95							0.46	
Do.	28	2.17 p.m.	3.15 p.m.	0.88	2.23 p.m.	2.43 p.m.	0.01	0.37	0.66	0.79	0.86										
Binghamton, N. Y.	25			0.95																	
Bismarck, N. Dak.	21			0.28																0.20	
Boston, Mass.	4	4.00 p.m.	5.03 p.m.	0.48	4.37 p.m.	4.51 p.m.	0.06	0.04	0.24	0.40	0.42										
Buffalo, N. Y.*																					
Cairo, Ill.	29	12.02 a.m.	D. N.	2.44	12.05 a.m.	2.00 a.m.	T.	0.03	0.24	0.44	0.61	0.78	0.89	1.01	1.11	1.16	1.26	1.36	1.42	2.43	
Charleston, S. C.	10-11	8.48 p.m.	5.19 a.m.	2.16	10.43 p.m.	11.29 p.m.	0.08	0.22	0.39	0.44	0.65	0.89	1.12	1.30	1.39	1.43					
Do.	13	1.10 a.m.	2.25 p.m.	3.07	1.20 a.m.	1.45 a.m.	0.03	0.09	0.30	0.72	1.05	1.10									
Do.	23	10.59 a.m.	12.18 p.m.	1.60	11.00 a.m.	12.00 p.m.	0.01	0.27	0.37	0.39	0.43	0.53	0.56	0.65	0.86	1.13	1.39	1.59			
Chicago, Ill.*																					
Cincinnati, Ohio	31	5.25 p.m.	6.10 p.m.	0.68	5.36 p.m.	5.46 p.m.	0.02	0.30	0.58	0.60										0.46	
Cleveland, Ohio	18			0.46																	
Columbia, Mo.	19-20	10.07 p.m.	3.30 a.m.	2.21	10.08 p.m.	11.54 p.m.	T.	0.09	0.26	0.46	0.53	0.67	0.77	0.83	0.87	0.92	1.01	1.14	1.53	1.80	1.85
Columbus, Ohio	20	1.00 p.m.	8.50 p.m.	1.26	1.04 p.m.	1.35 p.m.	0.01	0.27	0.54	0.73	0.89	0.97	1.03								
Denver, Colo.	25			0.21																0.21	
Des Moines, Iowa	2			0.24																0.28	
Detroit, Mich.	28			0.58																0.56	
Dodge, Kans	7-8	9.38 p.m.	8.20 a.m.	0.92	9.58 p.m.	10.25 p.m.	0.05	0.10	0.15	0.27	0.50	0.62	0.66								
Duluth, Minn.*				0.25																0.10	
Eastport, Me.	15	12.10 p.m.	2.15 p.m.	0.80	12.10 p.m.	12.25 p.m.	0.00	0.21	0.48	0.58											
Erie, Pa.	25			0.25																	
Fresno, Cal.†																					
Galveston, Tex.	16	7.50 a.m.	9.46 a.m.	1.18	8.10 a.m.	8.40 a.m.	0.06	0.14	0.40	0.64	0.82	1.03	1.10								
Hannibal, Mo.	7	D. N.	12.20 p.m.	1.86	7.45 a.m.	8.12 a.m.	0.21	0.12	0.27	0.44	0.70	1.05	1.14	1.16	1.18	1.21	1.25	1.36			
Harrisburg, Pa.	28	D. N.	5.30 a.m.	1.43	4.10 a.m.	4.48 a.m.	0.13	0.11	0.32	0.51	0.74	0.84	0.94	1.05	1.09						
Hatteras, N. C.	19-20	11.20 p.m.	4.10 a.m.	0.85	11.20 p.m.	12.10 a.m.	0.00	0.10	0.18	0.30	0.38	0.48	0.52	0.60	0.65	0.70	0.79	0.85			
Huron, S. Dak.	6	7.15 p.m.	8.50 p.m.	0.82	7.20 p.m.	7.55 p.m.	0.02	0.08	0.27	0.45	0.54	0.64	0.73	0.78						0.15	
Idaho Falls, Idaho	11-12			0.71																	
Indianapolis, Ind.	25	12.20 p.m.	3.50 p.m.	1.81	1.40 p.m.	2.05 p.m.	0.66	0.23	0.43	0.58	0.66	0.72									
Jacksonville, Fla.	8	3.30 p.m.	1.38 p.m.	0.91	12.55 p.m.	1.20 p.m.	0.01	0.14	0.29	0.46	0.72	0.87									
Do.	23	9.15 p.m.	11.30 p.m.	1.10	9.39 p.m.	10.20 p.m.	0.05	0.10	0.22	0.32	0.55	0.74	0.90	0.97	1.02						
Jupiter, Fla.	2	6.05 p.m.	7.00 p.m.	0.98	6.12 p.m.	6.35 p.m.	0.05	0.10	0.35	0.72	0.82	0.87									
Do.	14-15	11.00 p.m.	7.40 a.m.	1.03	3.23 p.m.	3.53 p.m.	0.20	0.15	0.40	0.60	0.77	0.87	0.95								
Kansas City, Mo.	21	8.25 p.m.	10.15 p.m.	1.53	8.45 p.m.	9.35 p.m.	0.22	0.08	0.25	0.40	0.55	0.62	0.80	0.95	1.05	1.11	1.16	1.21			
Key West, Fla.	13			0.43															0.35	0.18	
Knoxville, Tenn.	27			0.20																	
Lincoln, Nebr.	6	6.15 p.m.	3.52	7.47 p.m.	8.30 p.m.	0.04	0.18	0.43	0.51	0.56	0.63	0.71	0.87	0.94						0.55	
Little Rock, Ark.	31			0.70																0.49	
Los Angeles, Cal.	4			0.07																	
Louisville, Ky.	25			0.69																	
Memphis, Tenn.	26	2.50 a.m.	9.45 a.m.	1.49	5.00 a.m.	5.30 a.m.	0.42	0.08	0.21	0.33	0.54	0.74	0.88								
Milwaukee, Wis.	19	3.20 p.m.	4.25 p.m.	1.58	4.10 p.m.	4.40 p.m.	0.04	0.18	0.41	0.57	0.66	0.71	0.76	0.81							
Montgomery, Ala.	9	8.35 p.m.	11.45 p.m.	1.56	8.45 p.m.	9.25 p.m.	0.02	0.08	0.35	0.30	0.47	0.60	0.68	0.80	0.90	0.93	0.94	0.95	1.24	1.33	1.41
Nantucket, Mass.	9			1.16																0.48	
Nashville, Tenn.	25			0.83																0.66	
New Orleans, La.	7	8.50 a.m.	11.10 a.m.	1.25	9.17 a.m.	9.52 a.m.	0.01	0.13	0.33	0.58	0.83	0.95	1.08	1.14							
New York, N. Y.	30	2.50 p.m.	4.50 p.m.	1.44	3.13 p.m.	4.13 p.m.	T.	0.06	0.19	0.25	0.31	0.32	0.46	0.52	0.80	0.92	1.19	1.27			
Norfolk, Va.	19	7.10 p.m.	9.05 p.m.	2.25	7.15 p.m.	8.30 p.m.	T.	0.12	0.37	0.70	1.04	1.34	1.56	1.73	1.83	1.90	1.92	2.02	2.24		
Do.	31	6.45 p.m.	7.43 p.m.	1.52	6.50 p.m.	7.25 p.m.	0.01	0.18	0.41	0.73	1.00	1.18	1.35	1.43						0.68	
Northfield, Vt.	23			0.70																	
Oklahoma, Okla.	8			0.55																	
Omaha, Nebr.	6	1.02 p.m.	6.24 p.m.	2.98	4.49 p.m.	6.00 p.m.	0.33	0.67	0.97	1.27	1.47	1.63	1.71	1.91	2.05	2.21	2.33	2.53	2.61		
Parkersburg, W. Va.	19	12.38 p.m.	1.21 p.m.	0.97	12.52 p.m.	1.18 p.m.	0.05	0.25	0.56	0.70	0.82	0.92									
Do.	31	2.30 p.m.	5.15 p.m.	1.35	2.58 p.m.	3.20 p.m.	0.37	0.28	0.54	0.80	0.91	0.96									
Philadelphia, Pa.	4	3.15 p.m.	7.00 p.m.	0.96	3.18 p.m.	3.48 p.m.	T.	0.15	0.33	0.45	0.57	0.75	0.80								
Pittsburgh, Pa.	31	10.00 a.m.	10.50 a.m.	0.86	10.06 a.m.	10.25 a.m.	0.02	0.43	0.69	0.79	0.83										
Portland, Me.	19			0.33																0.32	
Portland, Oreg.	22			0.29																0.10	
Raleigh, N. C.	13	8.03 p.m.	10.00 p.m.	1.00	8.15 p.m.	8.45 p.m.	T.	0.18	0.38	0.48	0.63	0.74	0.78	0.82							
Do.	27	4.53 p.m.	8.05 p.m.	0.87	4.57 p.m.	5.17 p.m.	T.	0.23	0.45	0.57	0.65										
Richmond, Va.	17-18	7.35 p.m.	D. N.	1.90	7.51 p.m.	8.30 p.m.	0.03	0.07	0.28	0.55	0.81	0.97	1.08	1.13	1.18						
Rochester, N. Y.	23	2.10 p.m.	5.45 p.m.	1.52	2.14 p.m.	2.37 p.m.	0.10	0.35	0.60	0.80	1.00	1.20	1.35	1.43	1.46	1.48	1.51	1.52			
St. Louis, Mo.	7	8.48 a.m.	3.20 p.m.	1.91	12.20 p.m.	1.01 p.m.	0.52	0.08	0.20	0.34	0.41	0.61	0.71	0.80	0.94						
Do.	8	12.20 a.m.	3.00 a.m.	3.17	1.14 a.m.	2.20 a.m.	0.10	0.09	0.26	0.41											

TABLE XI.—*Excessive precipitation, by stations, for July, 1898.*

Stations.	Monthly rainfall 10 inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall of 1 inch or more, in one hour.	
		Amt.	Day.	Amt.	Time.
<i>Alabama.</i>		<i>Inches.</i>	<i>Inches.</i>	<i>Ins.</i>	<i>h.m.</i>
Eufaula	11.27			1.34	1 10
Florence	2.95		29	2.95	2 00
Madison				2.08	1 00
Newburg				1.60	1 00
Do.				1.44	1 00
Talladega				1.05	0 50
Thomasville				1.44	0 30
<i>Arizona.</i>					
Bisbee	3.94		1-2		
Fort Huachuca	4.05		4-5		
<i>Arkansas.</i>					
Conway				1.30	1 00
Dallas	3.80		25-26		
Elon				1.70	0 35
Do.				1.40	0 40
Fayetteville	3.85		30-31		
Fulton				1.15	1 00
Jonesboro				1.23	1 00
Keesees Ferry				1.25	0 22
Lonoke				1.00	1 00
Marvell	3.05		7-8		
Monticello				1.20	1 00
Moore				1.35	1 00
Mount Nebo	8.04		3	3.04	3 00
Pond	13.97		20-21		
Russellville				1.31	0 25
Do.				1.63	1 00
Silver Springs	11.80		20-21		
Do.	5.61		30-31		
Wiggs	2.75		9	2.75	2 40
<i>Connecticut.</i>					
Colchester		3.25	12-13		
Hartford		3.03	13		
Middletown		3.55	13		
New London		2.95	12-13		
Lambert		4.32	13		
Voluntown		4.00	12-13		
Wallingford		3.25	13		
<i>District of Columbia.</i>					
Washington				1.09	1 00
<i>Florida.</i>					
Archer	18.18	5.30	11		
Bartow		2.56	29		
Brooksville	12.48	2.63	11	1.02	0 50
Clemont				2.20	2 00
Earnestville				1.10	1 00
Eustis	10.16	3.03	4		
Federal Point	13.01	3.09	11		
Gainesville	12.61	4.75	11-12		
Grasmere				1.52	1 10
Jacksonville	12.03	3.25	11-12	1.35	0 38
Do.				1.10	0 45
Jupiter	14.04	7.50	10-12	1.20	1 00
Lake Butler	11.96	7.39	11-12		
Lake City					
Lakemont	12.32				
Macienty	15.79	4.76	11		
Manatee	13.93	3.43	10		
Merrits Island		3.12	8		
Myers		2.71	24	2.71	2 00
Ocala	12.66	2.80	30		
Orlando		3.08	21	2.21	0 46
St. Francis Barracks		4.65	11		
Stephensville	29.90	14.08	11-12		
Tallahassee	10.00	3.80	12		
Tampa		2.68	11	1.00	1 00
Do.				1.80	0 45
Tarpon Springs	12.77	3.00	11		
<i>Georgia.</i>					
Alapha		13.21			
Atlanta	10.22	5.56	22-23	4.90	1 51
Augusta		2.75	12-13		
Bainbridge				1.60	1 30
Brag	14.64	4.00	12		
Do.		4.25	23		
Clayton	14.36	2.64	14		
Do.		3.80	23		
Columbus				1.10	1 00
Covington	10.20	2.51	24		
Crescent	12.58	5.05	10-12		
Dahlonga	10.62				
Fleming	11.11	2.50	13		
Fort Gaines					
Franklin	11.76				
Gainesville	12.12				
Gillsville		3.05	22		
Hephzibah	10.40				
Leverett	15.45	3.92	9		
Lumpkin	10.59	2.50	30	2.59	1 00
Marietta	13.19	3.40	19		
Mauzy	13.86	3.44	29-30	2.16	1 00
Millen	11.76				
Mount Vernon	10.00	2.50	12		
Point Peter	11.51	3.18	12-13		
Do.		3.48	23	1.33	1 00
Quitman		2.53	11		
Ramsey				1.05	1 00
Savannah		3.18	12-13		
Talbotton	11.58				
Thomasville	10.88	2.56	12-13		

TABLE XI.—*Excessive precipitation*—Continued.

Stations.	Monthly rainfall 10 inches, or more.	Rainfall 2-50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.	
		Amt.	Day.	Amt.	Time.
<i>Georgia—Continued.</i>		<i>Inches.</i>	<i>Inches.</i>	<i>In.</i>	<i>h.m.</i>
Toccoa	8.80	12-18			
Waycross	10.81	3.50	11-12		
Waynesboro	11.29				
<i>Illinois.</i>					
Cairo	3.74	29	2.13	1 26	29
Chester	3.40	7-8			
Cobden	3.19	28-29			
Friendsgrove	3.20	25			
Hillsboro			1.19	1 18	26
Rantoul			1.00	0 40	17
<i>Indiana.</i>					
Angola			1.10	0 30	25
Bluffton			1.33	0 30	29
Connersville					
Delphi	8.35	25			
Hector			1.28	0 50	25
Indianapolis			2.00	0 30	17
Knightstown	2.89	24-25	1.06	1 00	25
Richmond	3.20	25	2.30	3 00	25
Shelbyville			2.38	2 00	25
Vevay			2.40	0 40	16
Worthington	2.86	3	2.86	1 15	3
<i>Indian Territory.</i>					
Kemp	3.00	16			
Lehigh	2.57	9	2.50	0 45	9
Purcell	3.15	9			
Tulsa	3.41	21			
Do.	3.60	31			
<i>Iowa.</i>					
Audubon	3.70	27			
Clear Lake	3.15	6			
College Springs	4.65	6-7			
Council Bluffs	2.90	6			
Elkader	2.50	19			
Greene	2.70	19	2.20	1 00	19
Osceola			1.80	1 30	2
Sidney	6.00	6			
Do.	2.56	27	2.56	0 25	27
Stuart	2.60	25			
Thurman	9.70	6-7	1.00	1 00	18
Winterset	2.70	9			
<i>Kansas.</i>					
Achilles	3.25	5			
Columbus	2.70	31			
Dresden	2.63	5	2.63	2 00	5
Eureka	2.90	19			
Grenola	3.78	31	3.71	4 00	31
Independence	3.78	31			
Norton	3.50	5-6			
Oberlin	3.90	6	3.30	2 00	6
<i>Kentucky.</i>					
Alpha	4.64	28			
Bardstown	2.90	5	1.17	1 00	26
Blandville	2.86	16			
Leitchfield			1.35	0 20	17
Paducah			1.46	1 20	26
Vanceburg	12.10	4-20	24-25		
<i>Louisiana.</i>					
Bastrop	8.59	24-25			
Baton Rouge	10.76	2.55	24	1.42	1 00
Cheneyville				1.35	1 05
Clinton	11.99	2.67	16		
Como				1.25	1 00
Donaldsonville					
Emelle	2.85	17			
Grand Coteau	3.64	23-24			
Jennings	2.80	24			
Lake Charles				1.70	1 00
Mansfield				1.10	0 40
Do.				2.25	2 00
Minden				1.63	1 00
New Orleans				1.21	1 00
Port Eads					7
Rayne					
Do.	2.70	9			
Southern University	10.05	2.80	17		
<i>Maine.</i>					
Farmington				1.00	1 00
North Bridgton	2.52	19			21
<i>Maryland.</i>					
Cherryfields	2.65	31			
Collegepark				1.27	0 30
Denton	2.50	21			
Grantsville	4.00	17	4.00	2 00	17
Pocomoke City	2.54	6	1.08	1 00	21
Solomons				1.75	1 30
<i>Massachusetts.</i>					
Bluehill	8.14	13			
Chestnut Hill	2.55	13			
Cohasset	3.55	13-14			
Fallriver	4.93	12-13			
Hingham	3.64	13			
Hyannis	2.76	13			
Hydepark	2.89	13			
Long Plain	4.71	12-13			
Mansfield	3.89	13-14			
Middleboro	4.13	13			
Milton	2.96	13			
New Bedford	4.20	13-14			
Provincetown	3.90	13			

TABLE XI.—*Excessive precipitation*—Continued.

Stations.	Monthly rainfall 10 inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.	
		Amt.	Day.	Amt.	Time.
Massachusetts—Continued.					
Roxbury	Inches.	Inches.	13-14	Ins.	h.m.
Somerset		2.64		.....	.....
Taunton		3.94	15		
Vineyard Haven		5.08	12-13		
Weston		2.96	12-13		
Woods Hole		3.41	12-13	1.62	1 30
Michigan.					
Big Rapids				1.55	1 30
Flint				1.16	1 00
St. Ignace		2.90	7		
Minnesota.					
Beardsley		2.73	1		
Do		3.25	6		
Detroit City		2.60	2		
Fergus Falls		4.87	1-2		
Milan				1.23	0 25
Minneapolis		2.65	*		
Morris		2.90	1-2		
Newfolden		2.70	1		
New London		3.70	1		
Parke Rapids		3.73	1-2		
Pokegama Falls		3.36	1-2		
Tower		3.50	1		
Willow River		2.78	18		
Mississippi.					
Austin		2.80	31		
French Camps		2.57	15	1.20	1 00
Lake	11.17			2.12	1 50
Leakesville		3.04	17		
Do		2.60	23		
Natchez				1.00	1 00
Pontotoc		3.42	15		
Walnut Grove	12.91	3.30	8		
Missouri.					
Appleton City		2.75	30		
Bethany		2.65	6-7		
Birchtree		2.92	31		
Bolckow		2.50	6		
Columbia				1.14	1 00
Conception	10.27	7.23	6-7		
Edgehill	15.06	8.00	8		
Do		3.88	29		
Fairport		2.50			
Fulton		3.20	20		
Gallatin		3.10	6-7		
Gorin		4.00	7		
Halfway		3.92	29-30		
Hannibal				1.50	1 30
Ironton		4.20	7-8		
Do		3.02	29		
Kansas City				1.21	1 00
Lamar				2.03	0 30
McCune		4.45	7	4.00	4 00
Maryville		6.84	6-7		
Mineral Spring	12.07	2.62	21-22		
Do		3.30	30-31		
Neosho		5.40	30-31	2.50	2 00
Oakfield		2.70	7		
Osceola		3.58	30-31		
Pickering	10.28	8.15	6-7		
Potosi		2.83	29		
St. Louis		5.08	7-8	1.03	1 00
Do				2.86	1 02
Springfield		2.62	30		
Steffenville		4.25	7		
Stellada		2.80	29-30		
Wheatland		2.54	29	2.54	2 00
Willow Springs				1.60	1 00
Do				1.60	1 00
Nebraska.					
Bassett		2.65	1		
Lincoln		3.52	6		
Norman				1.34	1 00
Omaha		3.55	6	2.98	1 53
Plattsmouth	11.53	10.69	6-7		
Ravenna				1.10	0 38
Santee Agency		2.62	7-8		
Seneca		2.50	9		
State Farm		6.12	7		
Thedford				1.70	1 30
Turlington				1.20	0 50
New Hampshire.					
Plymouth				1.80	1 00
New Jersey.					
Asbury Park	11.72	3.58	14		
Do		3.86	27		
Belvidere		2.78	19		
Charlotteburg				1.71	1 00
Egg Harbor City				1.13	0 30
Freehold		3.03	27		
Gillette		2.70	19		
Imlaystown				1.84	1 00
Ocean City		2.95	12-13	1.20	1 00
Staffordsville		5.27	12-13	1.80	1 00
Toms River		3.35	12-13		
Do		3.85	27		
New Mexico.					
Clayton				1.55	0 25
Lower Penasco		2.50	4		
Raton				1.00	0 30
				2.00	1 00

TABLE XI.—*Excessive precipitation*—Continued.

Stations.	Monthly rainfall 10 inches, or more.	Rainfall 2-50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.	
		Amt.	Day.	Amt.	Time.
<i>New York.</i>		<i>Inches.</i>	<i>Inches.</i>	<i>Ins.</i>	<i>h.m.</i>
Gloversville	3.38	18-19	.....	.....	.....
Lake Placid	2.50	18	1.75	1 30	21
Liberty	4.02	19	.....	.....	.....
New Lisbon	.....	.....	1.27	1 00	30
New York	.....	.....	1.55	1 00	27
Ogdensburg	.....	.....	1.05	0 50	28
Perry City	.....	.....	1.40	0 34	23
Rochester	.....	.....	1.76	1 10	25
Romulus	3.25	18	.....	.....	.....
St. Johnsville	4.20	13	.....	.....	.....
Setauket	.....	.....	.....	.....	.....
<i>North Carolina.</i>					
Flat Rock	13.73	8.90	14	.....	.....
Hendersonville	11.21	.....	1.05	0.30	31
Horse Cove	17.14	6.22	13-14	.....	.....
Do	.....	2.95	22	.....	.....
Louisburg	4.38	5-6	.....	.....	.....
Lumberton	2.95	31	.....	.....	.....
Marion	10.07	.....	.....	.....	.....
Mountairy	2.59	27	1.90	1 30	27
Mount Pleasant	4.76	6-7	.....	.....	.....
Pittsboro	2.61	5	.....	.....	.....
Raleigh	2.53	5-6	.....	.....	.....
Rockingham	2.90	5	.....	.....	.....
Selma	2.75	5	.....	.....	.....
Southern Pines	12.46	6.98	6-7	.....	.....
Southport	13.76	4.20	10	.....	.....
Weldon	2.86	5-6	.....	.....	.....
<i>North Dakota.</i>					
University	2.50	1	2.50	1 00	1
Wahpeton	4.53	1	.....	.....	.....
<i>Ohio.</i>					
Bigprairie	3.05	14-15	.....	.....	.....
Circleville	3.70	25	.....	.....	.....
Columbus	.....	.....	1.19	1 00	20
Dayton	.....	.....	1.12	0 50	20
Hillsboro	4.00	25	3.00	1 30	25
Killbuck	.....	.....	1.35	1 00	15
Leipsic	5.55	30	1.55	1 00	27
Logan	2.67	31	2.67	1 10	31
McArthur	.....	.....	1.23	1 00	27
Milligan	.....	.....	1.00	0 00	38
Montpelier	.....	.....	2.15	2 05	38
New Holland	3.79	25	.....	.....	.....
New Moscow	2.54	15	.....	.....	.....
Portsmouth	.....	.....	1.55	0 30	18
Ripley	3.36	18	3.36	1 45	18
Seaman	.....	.....	1.01	0 30	15
Do	.....	.....	1.00	0 30	20
Vanceburg	10.65	.....	.....	2.00	2 00
Do	.....	.....	1.12	1 00	17
Vickery	3.55	25	3.55	3 00	25
Wellington	2.50	17	.....	.....	.....
Wooster	3.91	17	1.18	1 00	28
Youngstown	.....	.....	1.72	1 00	17
.....	.....	.....	2.26	2 00	24
<i>Oklahoma.</i>					
Arapaho	3.75	19	3.75	3 00	19
Do	2.71	21	.....	.....	.....
Hennessey	3.30	20	.....	.....	.....
Kingfisher	5.47	20-21	.....	.....	.....
Pawhuska	4.01	20	4.01	3 40	20
Stillwater	3.67	20-21	.....	.....	.....
Waukomis	3.08	19	.....	.....	.....
<i>Pennsylvania.</i>					
Hamburg	3.86	28	.....	.....	.....
Harrisburg	.....	.....	1.24	1 00	28
Johnstown	.....	.....	1.08	0 35	17
Oil City	.....	.....	1.56	1 00	24
Selinsgrove	2.55	27	.....	.....	.....
Sbawmont	2.87	27	.....	.....	.....
Sinnamahoming	2.73	25	.....	.....	.....
Swarthmore	3.45	26-27	.....	.....	.....
Towanda	.....	.....	1.53	0 30	22
Uniontown	.....	.....	1.88	0 45	17
<i>Rhode Island.</i>					
Block Island	6.22	12-13	2.30	2 00	13
Bristol	4.27	13	.....	.....	.....
Kingston	5.50	12-13	.....	.....	.....
Lonsdale	3.97	13	1.61	1 10	31
Pawtucket	4.16	12-13	.....	.....	.....
Providence	10.80	4.77	13	.....	.....
Do	3.32	31	2.30	1 00	31
<i>South Carolina.</i>					
Allendale	3.20	23	3.20	1 10	23
Camden	11.62	4.23	5-6	.....	.....
Charleston	12.99	3.38	10-11	1.51	1 00
Do	3.38	12-13	1.16	1 00	13
Do	.....	.....	1.05	1 00	13
Do	.....	.....	1.57	1 00	23
Cheraw	3.00	5-6	.....	.....	.....
Columbia	12.17	4.16	5-6	.....	.....
Greenville	11.20	4.89	6	.....	.....
Longshore	.....	.....	2.00	1 30	9
Santuck	.....	.....	1.50	0 15	27
Society Hill	4.46	5	.....	.....	.....
Trenton	11.37	8.07	5-6	1.60	1 00
Walhalla	.....	.....	1.00	0 30	27
Do	.....	.....	.....	.....	.....
<i>South Dakota.</i>					
Gann Valley	.....	.....	2.00	1 00	22

TABLE XII.—*Excessive precipitation*.—Continued.

Stations.	Monthly rainfall 10 inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.		
		Amt.	Day.	Amt.	Time.	Day.
<i>South Dakota—Continued.</i>						
Hotch City	Inches.	Inches.		Ins.	h.m.	
Pierre				1.59	0 30	7
Yankton				1.54	0 47	7
				1.10	0 31	8
<i>Tennessee</i>						
Clarksville		2.50	25-26			
Dover		3.92	25-26			
Elk Valley		3.29	29-30			
Grace		2.60	3-4	1.90	1 00	4
Kingston				1.00	1 00	8
Lewisburg		2.60	26-27	1.00	1 00	3
Liberty		2.93	26-27			
Lynville				1.30	1 00	30
Madison		3.06	25-26			
Milan				1.30	1 00	5
Do.		3.25	31	3.25	3 00	31
Newport		2.68	25-26	1.35	1 00	9
Palmetto						
Pope		2.68	25-26	1.10	1 00	15
Sewanee		4.00	26-27			
Springfield		4.70	25-26			
Sylvia		2.82	9			
Tracy City		3.32	26-27			
Tullahoma		3.25	26-27			
Wildersville		2.50	30-31			
<i>Texas.</i>						
Arthur City				1.60	1 22	17
Breckenridge		3.58	17			
Cuero				1.99	1 30	5
Gainesville				1.10	0 45	5
Galveston				1.09	0 27	16
Hulen				1.33	1 00	16
Langtry				1.35	1 10	26

TABLE XIII.—*Excessive precipitation*.—Continued.

Stations.	Monthly rainfall 10 inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.	
		Amt.	Day.	Amt.	Time.
<i>Texas—Continued.</i>					
Luling	Inches.	Inches.		1.43	1 15
Mann				3.35	9-10
Rheinland				4.13	9
Tulia				3.22	2
<i>Vermont.</i>					
St. Johnsbury				5.18	18-19
<i>Virginia.</i>					
Bigstone Gap					1.07
Do.					0 45
Birdsnest					1.15
Blackburg					0 30
Doswell					1.00
Hampton				2.55	5-6
Lynchburg				2.56	17
Norfolk					1.89
Do.					0 45
Richmond					1.43
					0 36
					1.18
					0 39
<i>West Virginia.</i>					
Martinsburg				1.20	0 30
New Cumberland				2.65	1 30
Nuttallburg					1.00
Parkersburg					1 00
Powelton				1.28	1 00
				1.70	1 40
<i>Wisconsin.</i>					
Beloit				3.90	19-20
Harvey				3.54	18-19
Madison				2.60	19-20
North Crandon				1.80	1 00

* June 30—July 1.

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